CDX-F7710/F7710S/F7715X/ F7750/F7750S

SERVICE MANUAL

Ver. 1.0 2004.12

US Model
Canadian Model
CDX-F7715X
AEP Model
UK Model
CDX-F7750/F7750S
E Model
CDX-F7710/F7710S

Photo: CDX-F7710S

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS (US MODEL)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-611TS-186//K
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	CDX-F7715X: 87.5 – 107.9 MHz CDX-F7710/F7710S/F7750/F7750S: 87.5 – 108 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (CDX-F7715X)

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

MW/LW (CDX-F7710/F7710S/F7750/F7750S)

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (front/rear) Subwoofer output terminal (mono) Power antenna relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Illumination control terminal BUS control input terminal BUS audio input/AUX IN terminal Remote controller input terminal Antenna input terminal

– Continued on next page –

FM/AM COMPACT DISC PLAYER
CDX-F7715X
FM/MW/LW COMPACT DISC PLAYER
CDX-F7710/F7710S/F7750/F7750S

9-879-359-01
2004L04-1
© 2004. 12
Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY®

Tone controls	CDX-F7710/F7710S/F7750/F7750S: Bass: ±8 dB at 100 Hz Treble: ±8 dB at 10 kHz CDX-F7715S: Bass: ±10 dB at 62 Hz Treble: ±10 dB at 16 kHz
Loudness	+8 dB at 100 Hz +2 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 178 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (7 1/4 × 2 1/8 × 6 3/8 in.) (w/h/d)
Mass	Approx. 1.3 kg (2 lb. 14 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1) Card remote commander RM-X152 (CDX-F7715S) Card remote commander RM-X154 (CDX-F7710/F7710S/F7750/F7750S)

US and foreign patents licensed from Dolby Laboratories.

Note
This unit cannot be connected to a digital preamplifier or an equalizer which is Sony BUS system compatible.

Design and specifications are subject to change without notice.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

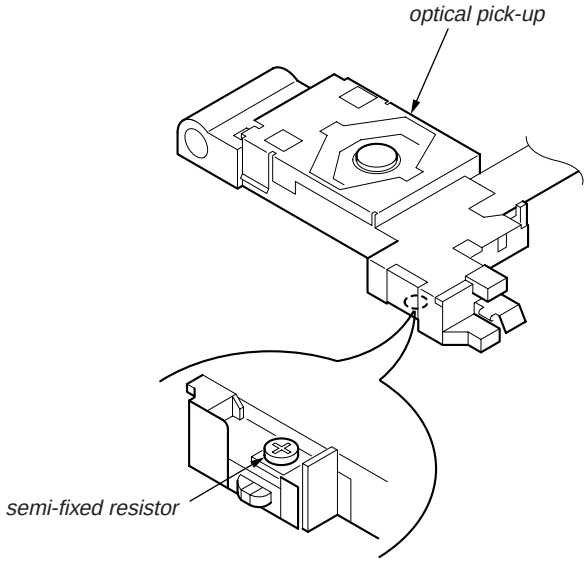
CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



• CDX-F7710/F7710S/F7750/F7750S model

This label is located on the bottom of the chassis.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

• CD Playback:
You can play CD-DA (also containing CD TEXT*[1]), CD-R/CD-RW (MP3 files also containing Multi Session and ATRAC CD (ATRAC3 and ATRAC3plus format).

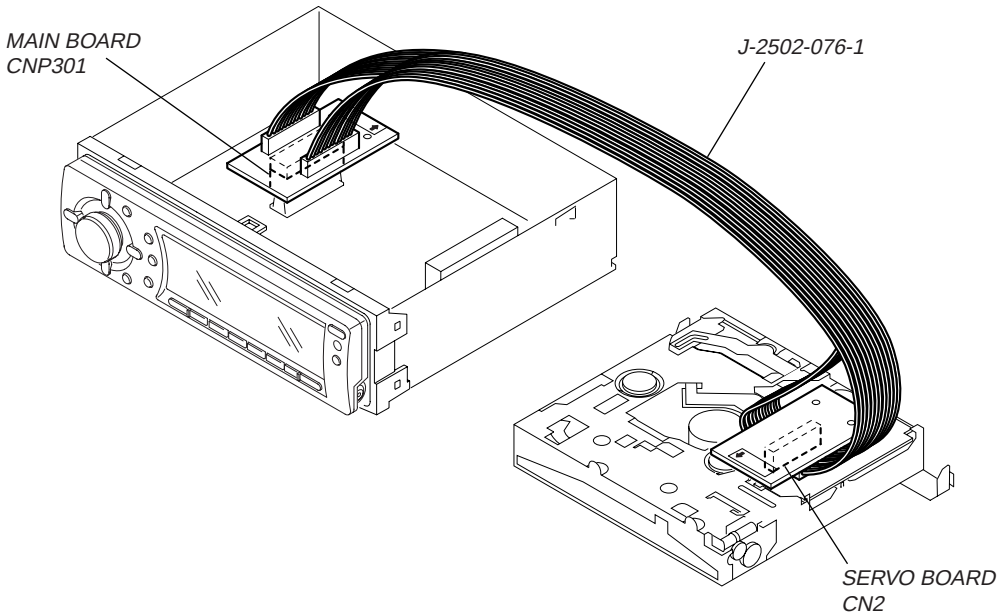
Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

*1 A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CNP301) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

• Strong viscosity
Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

TABLE OF CONTENTS

1. GENERAL

Location of Controls 5
Connections 6

2. DISASSEMBLY

2-1. Sub Panel Assy (CD) 10
2-2. CD Mechanism Block 10
2-3. Main Board 11
2-4. Chassis (T) Sub Assy 11
2-5. Roller Arm Assy 12
2-6. Chassis (OP) Assy 12
2-7. Optical Pick-up 13
2-8. SL Motor Assy (M902) 13
2-9. LE Motor Assy (M903) 14
2-10. Servo Board 14

3. DIAGRAMS

3-1. Block Diagram –CD Section– 15
3-2. Block Diagram –Main Section– 16
3-3. Block Diagram –Display Section– 17
3-4. Circuit Boards Location 18
3-5. Printed Wiring Boards –CD Mechanism Section– 19
3-6. Schematic Diagram –CD Mechanism Section (1/2)– 20
3-7. Schematic Diagram –CD Mechanism Section (2/2)– 21
3-8. Printed Wiring Boards –Main Section– 22
3-9. Schematic Diagram –Main Section (1/4)– 24
3-10. Schematic Diagram –Main Section (2/4)– 25
3-11. Schematic Diagram –Main Section (3/4)– 26
3-12. Schematic Diagram –Main Section (4/4)– 27
3-13. Printed Wiring Board –Relay Section– 28
3-14. Printed Wiring Board –Display Section– 29
3-15. Schematic Diagram –Display Section– 30

4. EXPLODED VIEWS

4-1. Main Section 40
4-2. Front Panel Section 41
4-3. CD Mechanism Section (1) 42
4-4. CD Mechanism Section (2) 43
4-5. CD Mechanism Section (3) 44
4-6. CD Mechanism Section (4) 45

5. ELECTRICAL PARTS LIST 46

SECTION 1
GENERAL

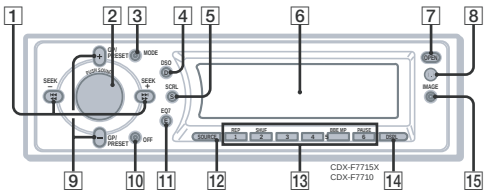
This section is extracted from instruction manual.

• LOCATION OF CONTROL

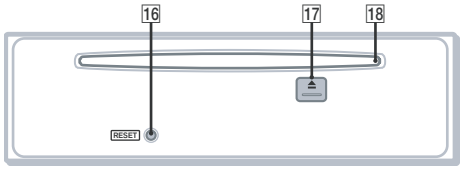
• CDX-F7715X

Location of controls and basic operations

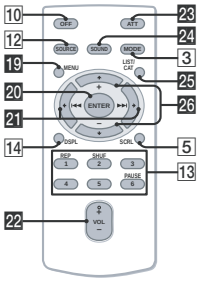
Main unit



Front panel removed



Card remote commander RM-X152



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **SEEK –/+ buttons**
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).

2 **Volume control dial/SOUND button** 9
To adjust volume (rotate); select sound items (press).

3 **MODE button** 8, 12
To select the radio band (FM/AM)/select the unit*1.

4 **DSO button** 2
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

5 **SCRL (scroll) button** 8
To scroll the display item.

6 **Display window**

7 **OPEN button** 5

8 **Receptor for the card remote commander**

9 **GP*2/PRESET +/– buttons**
To select preset stations/skip groups (press); skip groups continuously (press and hold).

10 **OFF button**
To power off/stop the source.

11 **EQ7 (equalizer) button**
To select an equalizer type (Xplod, VOCAL, CLUB, JAZZ, NEWAGE, ROCK, CUSTOM or OFF).

12 **SOURCE button**
To power on/change the source (Radio/CD/MD*3/AUX*4).

13 **Number buttons**
Radio:
To receive stored stations (press); store stations (press and hold).
CD/MD*5:
(1): **REP** 8
(2): **SHUF** 8
(5): **BBE MP***5*6 3
To activate the BBE MP function, set "BBE MP on." To cancel, set "BBE MP off."
(6): **PAUSE***6
To pause playback. To cancel, press again.

14 **DSPL (display) button** 8, 10
To change display items.

15 **IMAGE button** 2
To select the display image.
Space Producer mode → Wall paper mode 1-3 → Spectrum analyzer mode 1-5 → Movie mode 1-3 → normal play/reception mode

16 **RESET button** 4

17 **⏏ (eject) button** 5
To eject the disc.

18 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

19 **MENU button**
To enter menu.

20 **ENTER button**
To complete a setting.

21 **← (I◀◀)/→ (▶▶I) buttons**
To control radio/CD, the same as (SEEK) –/+ on the unit.

22 **VOL (volume) +/– button**
To adjust volume.

23 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

24 **SOUND button** 9
To select sound items.

25 **LIST/CAT*7 button** 9, 12
To list up.

26 **↑ (+)/↓ (–) buttons**
To control radio/CD, the same as (GP/PRESET) +/– on the unit.

*1 *When a CD/MD changer is connected.*
*2 *When an MP3/ATRAC CD is played and a changer is not connected. If the changer is connected, the operation is different, see page 12.*
*3 *When an MD changer is connected.*
*4 *When an optional Sony portable device is connected.*
*5 *The unit only.*
*6 *When playing back on this unit.*
*7 *When the XM tuner is connected.*

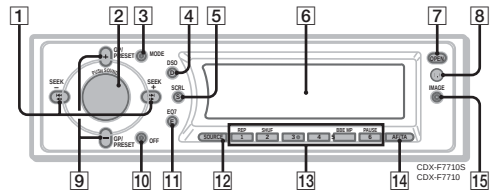
Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 14.

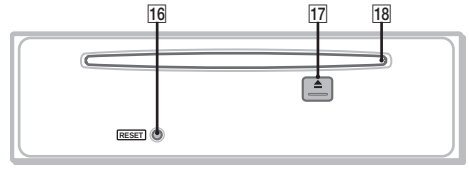
• CDX-F7710/F7710S/F7750/F7750S

Location of controls and basic operations

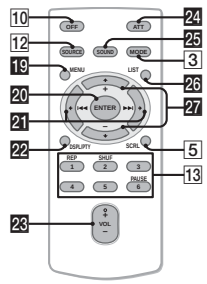
Main unit



Front panel removed



Card remote commander RM-X154



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **SEEK –/+ buttons**
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).

2 **Volume control dial/SOUND button** 11
To adjust volume (rotate); select sound items (press).

3 **MODE button** 8, 12
To select the radio band (FM/MW/LW)/select the unit*1.

4 **DSO button** 2
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

5 **SCRL (scroll) button** 8
To scroll the display item.

6 **Display window**

7 **OPEN button** 5

8 **Receptor for the card remote commander**

9 **GP*2/PRESET +/– buttons**
To select preset stations/skip groups (press); skip groups continuously (press and hold).

10 **OFF button**
To power off/stop the source.

11 **EQ7 (equalizer) button**
To select an equalizer type (Xplod, VOCAL, CLUB, JAZZ, NEWAGE, ROCK, CUSTOM or OFF).

12 **SOURCE button**
To power on/change the source (Radio/CD/MD*3/AUX*4).

13 **Number buttons**
Radio:
To receive stored stations (press); store stations (press and hold).
CD/MD*3:
(1): **REP** 8
(2): **SHUF** 8
(5): **BBE MP***5*6 2
To activate the BBE MP function, set "BBE MP on." To cancel, set "BBE MP off."
(6): **PAUSE***6
To pause playback. To cancel, press again.

14 **AF (Alternative Frequencies)/TA (Traffic Announcement) button** 9, 10
To set AF and TA/TP in RDS.

15 **IMAGE button** 2
To select the display image.
Space Producer mode → Wall paper mode 1-3 → Spectrum analyzer mode 1-5 → Movie mode 1-3 → normal play/reception mode

16 **RESET button** 4

17 **⏏ (eject) button** 5
To eject the disc.

18 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

19 **MENU button**
To enter menu.

20 **ENTER button**
To complete a setting.

21 **← (I◀◀)/→ (▶▶I) buttons**
To control radio/CD, the same as (SEEK) –/+ on the unit.

22 **DSPL (display)/PTY (Programme Type) button** 8, 10, 13
To change display items; to select PTY in RDS.

23 **VOL (volume) +/– button**
To adjust volume.

24 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

25 **SOUND button** 11
To select sound items.

26 **LIST button** 9, 13
To list up.

27 **↑ (+)/↓ (–) buttons**
To control radio/CD, the same as (GP/PRESET) +/– on the unit.

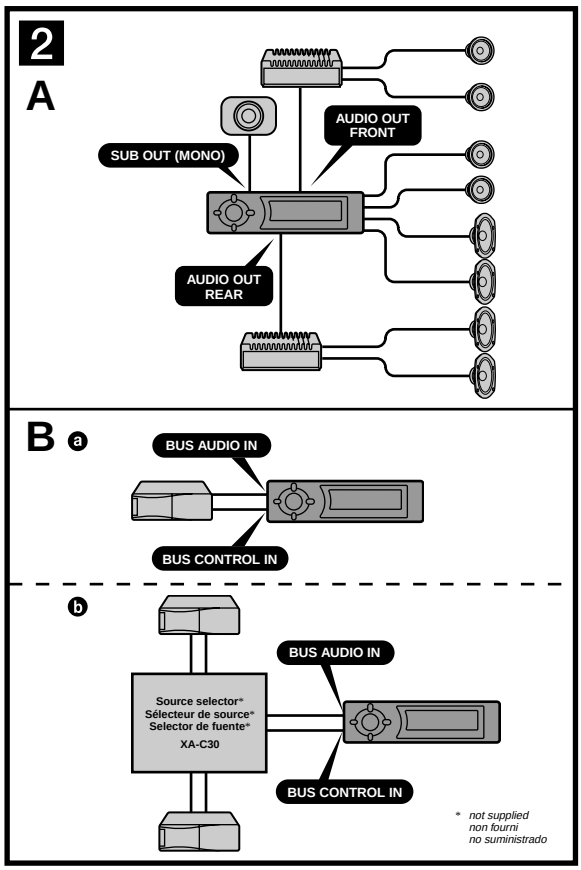
*1 *When a CD/MD changer is connected.*
*2 *When an MP3/ATRAC CD is played and a changer is not connected. If the changer is connected, the operation is different, see page 13.*
*3 *When an MD changer is connected.*
*4 *When an optional Sony portable device is connected.*
*5 *The unit only.*
*6 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 16.

• CONNECTIONS

• CDX-F7715X



Connection example (2)

***Notes* (2-A)**
- *Be sure to connect the ground lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Exemple de raccordement (2)

***Remarques* (2-A)**
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

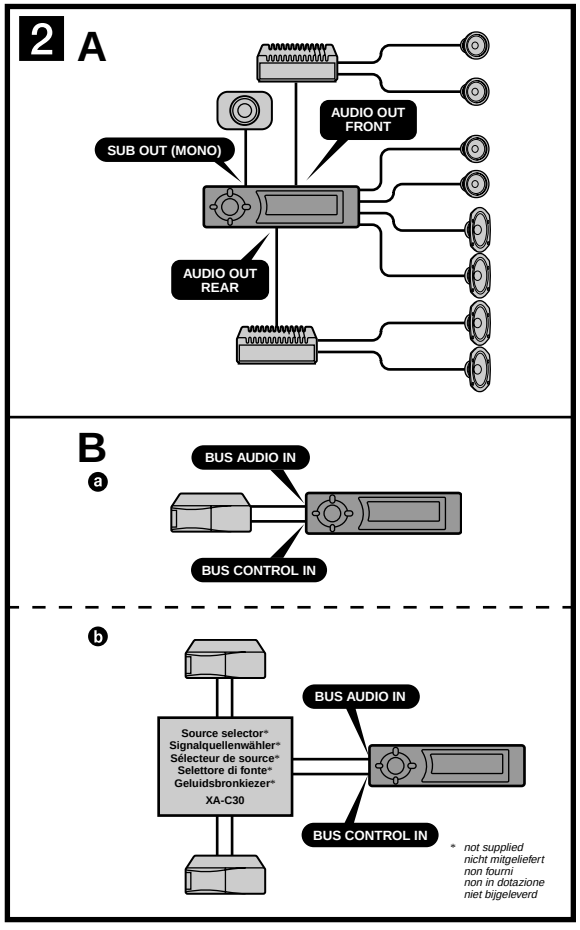
***Conseil* (2-B-b)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est requis.

Ejemplo de conexiones (2)

***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de conexión a masa antes de realizar la conexión del amplificador.*
- *La alarma sonará únicamente si se utiliza el amplificador incorporado.*

***Sugerencia* (2-B-b)**
Si desea conectar dos o más cambiadores de CD/MD, necesitará el selector de fuente XA-C30 (opcional).

• CDX-F7750/F7750S



Connection example (2)

***Notes* (2-A)**
- *Be sure to connect the earth lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Anschlussbeispiel (2)

***Hinweise* (2-A)**
- *Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.*
- *Der Signalton wird nur ausgegeben, wenn der integrierte Verstärker verwendet wird.*

***Tipp* (2-B-b)**
Zum Anschließen von zwei oder mehr CD/MD-Wechslern wird der gesondert erhältliche Signalquellenwähler XA-C30 benötigt.

Exemple de raccordement (2)

***Remarques* (2-A)**
- *Raccordez d'abord le câble de mise à la masse avant de connecter l'amplificateur.*
- *Un bip sera émis uniquement lorsque l'amplificateur intégré est utilisé.*

***Conseil* (2-B-b)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est indispensable.

Esempio di collegamento (2)

***Note* (2-A)**
- *Assicurarsi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.*
- *Il segnale acustico viene emesso solo se viene utilizzato l'amplificatore incorporato.*

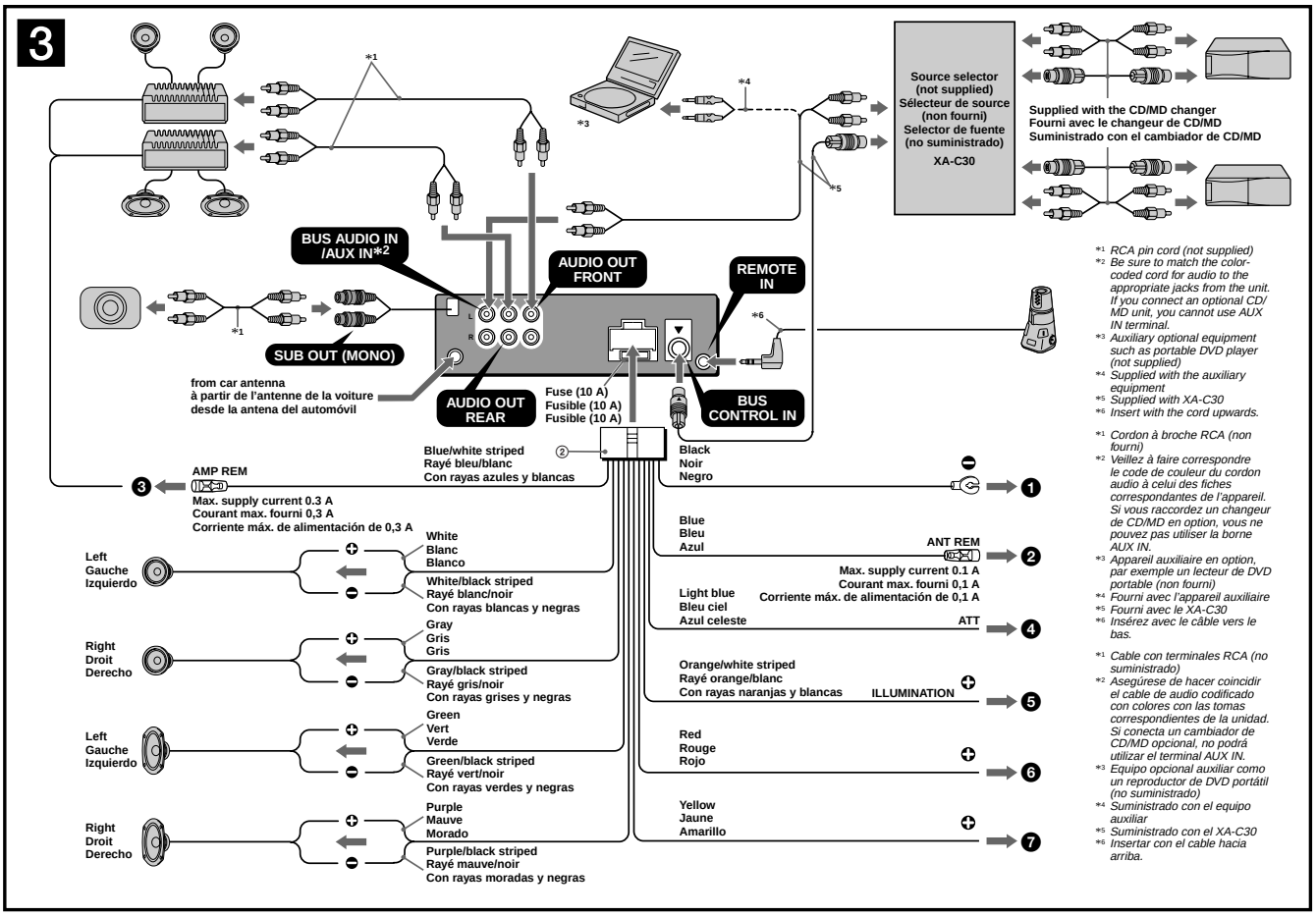
***Suggerimento* (2-B-b)**
Per collegare due o più cambia CD/MD, si deve utilizzare il selettore di fonte XA-C30 (opzionale).

Voorbeeldaansluitingen (2)

***Opmerkingen* (2-A)**
- *Sluit eerst de aarddraad aan voordat u de versterker aansluit.*
- *U hoort de pieptoon alleen als de ingebouwde versterker wordt gebruikt.*

***Tip* (2-B-b)**
Om twee of meer CD/MD-wisselaars aan te sluiten, hebt u de geluidsbronkiezer XA-C30 (optioneel) nodig.

• CDX-F7715X



*1 *RCA pin cord (not supplied)*
*2 *Be sure to match the color-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD unit, you cannot use AUX IN terminal.*
*3 *Auxiliary optional equipment such as portable DVD player (not supplied)*
*4 *Supplied with the auxiliary equipment*
*5 *Supplied with XA-C30*
*6 *Insert with the cord upwards.*

*1 *Cordon à broche RCA (non fourni)*
*2 *Veillez à faire correspondre le code de couleur du cordon audio à celui des fiches correspondantes de l'appareil. Si vous raccordez un changeur de CD/MD en option, vous ne pouvez pas utiliser la borne AUX IN.*
*3 *Appareil auxiliaire en option, par exemple un lecteur de DVD portable (non fourni)*
*4 *Fourni avec l'appareil auxiliaire*
*5 *Fourni avec le XA-C30*
*6 *Insérez avec le câble vers le bas.*

*1 *Cable con terminales RCA (no suministrado)*
*2 *Asegúrese de hacer coincidir el cable de audio codificado con colores con las tomas correspondientes de la unidad. Si conecta un cambiador de CD/MD opcional, no podrá utilizar el terminal AUX IN.*
*3 *Equipo opcional auxiliar como un reproductor de DVD portátil (no suministrado)*
*4 *Suministrado con el equipo auxiliar*
*5 *Suministrado con el XA-C30*
*6 *Insertar con el cable hacia arriba.*

Connection diagram (3)

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "Failure" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement (3)

❶ **À un point métallique de la voiture**
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation rayé orange/blanc, jaune, et rouge.

❷ **Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne**
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ **Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **Vers le cordon de liaison d'un téléphone de voiture**

❺ **Vers le connecteur du signal d'éclairage de la voiture**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

❻ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence. Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❼ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

Remarques sur les c,b les de commande et dialimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne électrique (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « Failure » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

Diagrama de conexión (3)

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de puesta a masa negro, y después los cables con rayas naranjas y blancas, amarillo, y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena**
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **A AMP REMOTE IN de un amplificador de potencia opcional**
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al cable de interfaz de un teléfono para automóvil**

❺ **A una señal de iluminación del automóvil**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

❻ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❼ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

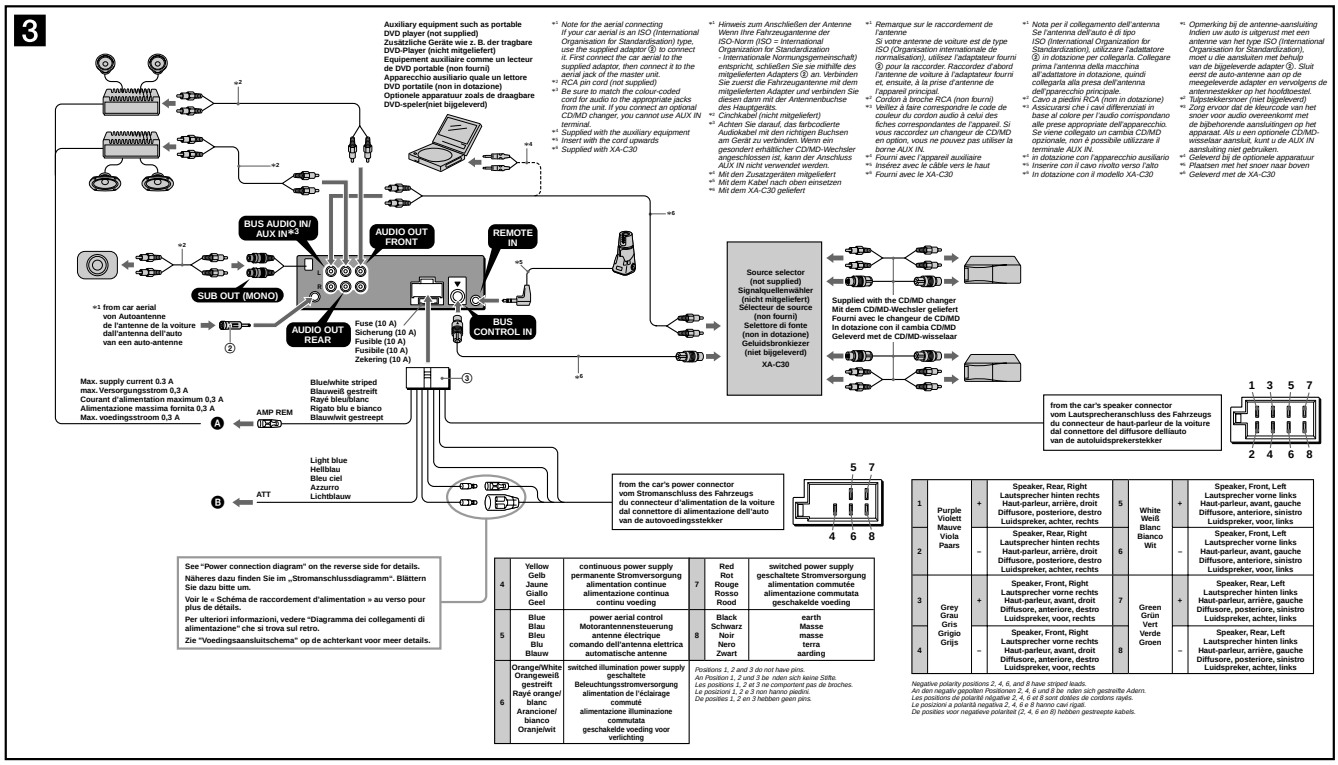
Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague la llave de encendido.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "Failure" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

• CDX-F7750/F7750S


3
Auxiliary equipment such as portable DVD player (not supplied)
Zusätzliche Geräte wie z. B. der tragbare DVD-Player (nicht mitgeliefert)
Equipement auxiliaire comme un lecteur de DVD portable (non fourni)
Apparecchio ausiliario quale un lettore DVD portatile (non in dotazione)
Optionele apparatuur zoals de draagbare DVD-speler(niet bijgeleverd)
BUS AUDIO IN/ AUX IN*3
AUDIO OUT FRONT
REMOTE IN
SUB OUT (MONO)
AUDIO OUT REAR
BUS CONTROL IN
*1 from car aerial
von Autoantenne
de l'antenne de la voiture
dall'antenna dell'auto
van een auto-antenne
Fuse (10 A)
Sicherung (10 A)
Fusible (10 A)
Fusibile (10 A)
Zekering (10 A)
Max. supply current 0,3 A
max. Versorgungsstrom 0,3 A
Courant d'alimentation maximum 0,3 A
Alimentazione massima fornita 0,3 A
Max. voedingsstroom 0,3 A
AMP REM
Blue/white striped
Blauweiß gestreift
Rayé bleu/blanc
Rigato blu e bianco
Blauw/wit gestreept
Light blue
Hellblau
Bleu ciel
Azzurro
Lichtblauw
ATT
Source selector (not supplied)
Signalquellenwähler (nicht mitgeliefert)
Sélecteur de source (non fourni)
Selettore di fonte (non in dotazione)
Geluidsbronkiezer (niet bijgeleverd)
XA-C30
Supplied with the CD/MD changer
Mit dem CD/MD-Wechsler geliefert
Fourni avec le changeur de CD/MD
In dotazione con il cambia CD/MD
Geleverd met de CD/MD-wisselaar
from the car's speaker connector
vom Lautsprecheranschluss des Fahrzeugs
du connecteur de haut-parleur de la voiture
dal connettore di altoparlante dell'auto
van de autoluidsprekerstekker
from the car's power connector
vom Stromanschluss des Fahrzeugs
du connecteur d'alimentation de la voiture
dal connettore di alimentazione dell'auto
van de autovoedingsstekker
See "Power connection diagram" on the reverse side for details.
Näheres dazu finden Sie im „Stromanschlussdiagramm". Blättern Sie dazu bitte um.
Voir le « Schéma de raccordement d'alimentation » au verso pour plus de détails.
Per ulteriori informazioni, vedere "Diagramma dei collegamenti di alimentazione" che si trova sul retro.
Zie "Voedingsaansluitschema" op de achterkant voor meer details.

4	Yellow / Gelb / Jaune / Giallo / Geel	continuous power supply / permanente Stromversorgung / alimentation continue / alimentazione continua / continu voeding	
5	Blue / Blau / Bleu / Blu / Blauw	power aerial control / Motorantennensteuerung / antenne électrique / comando dell'antenna elettrica / automatische antenne	
6	Orange/White / Orangeweiß gestreift / Rayé orange/blanc / Arancione/bianco / Oranje/wit	switched illumination power supply / geschaltete Beleuchtungsstromversorgung / alimentation de l'éclairage commuté / alimentazione illuminazione commutata / geschakelde voeding voor verlichting	
7	Red / Rot / Rouge / Rosso / Rood	switched power supply / geschaltete Stromversorgung / alimentation commutée / alimentazione commutata / geschakelde voeding	
8	Black / Schwarz / Noir / Nero / Zwart	earth / Masse / masse / terra / aarding	

1	Purple / Violett / Mauve / Viola / Paars	+	Speaker, Rear, Right / Lautsprecher hinten rechts / Haut-parleur, arrière, droit / Diffusore, posteriore, destro / Luidspreker, achter, rechts	5	White / Weiß / Blanc / Bianco / Wit	+	Speaker, Front, Left / Lautsprecher vorne links / Haut-parleur, avant, gauche / Diffusore, anteriore, sinistro / Luidspreker, voor, links
		–	Speaker, Rear, Right / Lautsprecher hinten rechts / Haut-parleur, arrière, droit / Diffusore, posteriore, destro / Luidspreker, achter, rechts			–	Speaker, Front, Left / Lautsprecher vorne links / Haut-parleur, avant, gauche / Diffusore, anteriore, sinistro / Luidspreker, voor, links
2				6			
3	Grey / Grau / Gris / Grigio / Grijs	+	Speaker, Front, Right / Lautsprecher vorne rechts / Haut-parleur, avant, droit / Diffusore, anteriore, destro / Luidspreker, voor, rechts	7	Green / Grün / Vert / Verde / Groen	+	Speaker, Rear, Left / Lautsprecher hinten links / Haut-parleur, arrière, gauche / Diffusore, posteriore, sinistro / Luidspreker, achter, links
4		–	Speaker, Front, Right / Lautsprecher vorne rechts / Haut-parleur, avant, droit / Diffusore, anteriore, destro / Luidspreker, voor, rechts	8		–	Speaker, Rear, Left / Lautsprecher hinten links / Haut-parleur, arrière, gauche / Diffusore, posteriore, sinistro / Luidspreker, achter, links

Positions 1, 2 and 3 do not have pins.
An Position 1, 2 und 3 bei nden sich keine Stifte.
Les positions 1, 2 et 3 ne comportent pas de broches.
La posizioni 1, 2 e 3 non hanno piedini.
De posities 1, 2 en 3 hebben geen pins.

Negative polarity positions 2, 4, 6, and 8 have striped leads.
An den negativ gepolten Positionen 2, 4, 6 und 8 be nden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
La posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De posities voor negatieve polariteit (2, 4, 6 en 8) hebben gestreepte kabels.

**1 Note for the aerial connecting*
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor Ⓐ to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
**2 RCA pin cord (not supplied)*
**3 Be sure to match the colour-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD changer, you cannot use AUX IN terminal.*
**4 Supplied with the auxiliary equipment*
**5 Insert with the cord upwards*
**6 Supplied with XA-C30*

**1 Hinweis zum Anschließen der Antenne*
Wenn Ihre Fahrzeugantenne der ISO-Norm (ISO = International Organization for Standardization - International Normungsgemeinschaft) entspricht, schließen Sie sie mithilfe des mitgelieferten Adapters Ⓐ an. Verbinden Sie zuerst die Fahrzeugantenne mit dem mitgelieferten Adapter und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
**2 Cinchkabel (nicht mitgeliefert)*
**3 Achten Sie darauf, das farbcodierte Audiokabel mit den richtigen Buchsen am Gerät zu verbinden. Wenn ein gesondert erhältlicher CD/MD-Wechsler angeschlossen ist, kann der Anschluss AUX IN nicht verwendet werden.*
**4 Mit dem Zusatzgerätem mitgeliefert*
**5 Mit dem Kabel nach oben einsetzen*
**6 Mit dem XA-C30 geliefert*

**1 Remarque sur le raccordement de l'antenne*
Si votre antenne de voiture est de type ISO (Organisation internationale de normalisation), utilisez l'adaptateur fourni Ⓐ pour la raccorder. Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
**2 Cordon à broche RCA (non fourni)*
**3 Veillez à faire correspondre le code de couleur du cordon audio à celui des fiches correspondantes de l'appareil. Si vous raccordez un changeur de CD/MD en option, vous ne pouvez pas utiliser la borne AUX IN.*
**4 Fourni avec l'appareil auxiliaire*
**5 Insérez avec le câble vers le haut*
**6 Fourni avec le XA-C30*

**1 Nota per il collegamento dell'antenna*
Se l'antenna dell'auto è di tipo ISO (International Organization for Standardization), utilizzare l'adattatore Ⓐ in dotazione per collegarla. Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
**2 Cavo a piedini RCA (non in dotazione)*
**3 Assicurarsi che i cavi differenziati in base al colore per l'audio corrispondano alle prese appropriate dell'apparecchio. Se viene collegato un cambia CD/MD opzionale, non è possibile utilizzare il terminale AUX IN.*
**4 in dotazione con l'apparecchio ausiliario*
**5 Inserire con il cavo rivolto verso l'alto*
**6 In dotazione con il modello XA-C30*

**1 Opmerking bij de antenne-aansluiting*
Indien uw auto is uitgerust met een antenne van het type ISO (International Organisation for Standardization), moet u die aansluiten met behulp van de bijgeleverde adapter Ⓐ. Sluit eerst de auto-antenne aan op de meegeleverde adapter en vervolgens de antennestekker op het hoofdtoestel.
**2 Tulpstekkersnoer (niet bijgeleverd)*
**3 Zorg ervoor dat de kleurcode van het snoer voor audio overeenkomt met de bijbehorende aansluitingen op het apparaat. Als u een optionele CD/MD-wisselaar aansluit, kunt u de AUX IN aansluiting niet gebruiken.*
**4 Geleverd bij de optionele apparatuur*
**5 Plaatsen met het snoer naar boven*
**6 Geleverd met de XA-C30*

Connection diagram (3)

Ⓐ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

Ⓑ **To the interface cable of a car telephone**

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting lead Ⓒ may damage the aerial.

Notes on the control power and supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner, or when you activate the AF (Alternative Frequency) or TA (Traf c Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and ampli er are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Anschlussdiagramm (3)

Ⓐ **An AMP REMOTE IN des gesondert erhältlichen Endverstärkers**
Dieser Anschluss ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.

Ⓑ **An Schnittstellenkabel eines Autotelefons**

Warnung

Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungskabel Ⓒ die Antenne beschädigt werden.

Hinweise zu den Steuer- und Stromversorgungsleitungen
- *Die Motorantennen-Steuerleitung (blau) liefert +12 V Gleichstrom, wenn Sie den Tuner einschalten oder die AF- (Alternativfrequenzsuche) oder die TA-Funktion (Verkehrsdurchsagen) aktivieren.*
- *Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM (UKW)/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluss des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.*
- *Es kann nur eine Motorantenne mit Relaiskästchen angeschlossen werden.*

Stromversorgung des Speichers
Wenn die gelbe Stromversorgungsleitung angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluss
- *Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.*
- *Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Verbinden Sie die Masseleitung dieses Geräts nicht mit dem negativen (–) Lautsprecheranschluss.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keinen Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da das Gerät sonst beschädigt werden könnte.*
- *Um Fehlfunktionen zu vermeiden, verwenden Sie nicht die im Fahrzeug installierten, integrierten Lautsprecherleitungen, wenn am Ende eine gemeinsame negative (–) Leitung für den rechten und den linken Lautsprecher verwendet wird.*
- *Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.*

Hinweis zum Anschließen
Wenn Lautsprecher und Verstärker nicht richtig angeschlossen sind, erscheint „FAILURE" im Display. Vergewissern Sie sich in diesem Fall, dass Lautsprecher und Verstärker richtig angeschlossen sind.

Schémas de raccordement (3)

Ⓐ **Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif**
Ce raccordement existe seulement pour les ampli cateurs. Le raccordement à tout autre système peut endommager l'appareil.

Ⓑ **Vers le cordon de liaison d'un téléphone de voiture**

Avertissement

Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni Ⓒ risque d'endommager l'antenne.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande (bleu) fournit du courant continu de +12 V lorsque vous mettez le tuner sous tension ou lorsque vous activez la fonction AF (fréquence alternative) ou TA (informations de circulation).*
- *Lorsque votre voiture est équipée d'une antenne FM/MW (GO)/LW (PO) intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) au bornier de l'ampli cateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble de commande d'antenne jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est en position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas raccorder le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Connecter uniquement des haut-parleurs passifs. La connexion de haut-parleurs actifs (avec des ampli cateurs intégrés) aux bornes des haut-parleurs pourrait endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil dispose d'un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les enceintes et l'ampli cateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les enceintes et l'ampli cateur sont raccordÉs correctement.

Schema di collegamento (3)

Ⓐ **A AMP REMOTE IN di un amplificatore di potenza opzionale**
Questo collegamento è riservato esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.

Ⓑ **Al cavo di interfaccia di un telefono per auto**

Avvertenza

Quando si collega l'apparecchio con il cavo di alimentazione in dotazione Ⓒ, si potrebbe danneggiare l'antenna elettrica se questa non dispone di scatola a relè.

Note sui cavi di controllo e di alimentazione
- *Il cavo (blu) di controllo dell'antenna elettrica fornisce alimentazione pari a +12 V CC quando si attiva il sintonizzatore oppure la funzione TA (notiziario sul traffico) o AF (frequenza alternativa).*
- *Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione accessoria al terminale di alimentazione del preamplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.*
- *Non è possibile usare un'antenna elettrica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria
Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memoria anche quando l'interruttore di accensione è spento.

Note sul collegamento dei diffusori
- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venire danneggiati.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare il cavo di terra di questo apparecchio al terminale negativo (–) del diffusore.*
- *Non collegare i diffusori in parallelo.*
- *Assicurarsi di collegare soltanto diffusori passivi, poiché il collegamento di diffusori attivi, dotati di amplificatori incorporati, ai terminali dei diffusori potrebbe danneggiare l'apparecchio.*
- *Per evitare problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'automobile se l'apparecchio condivide un cavo comune negativo (–) per i diffusori destro e sinistro.*
- *Non collegare fra loro i cavi dei diffusori dell'apparecchio.*

Nota sui collegamenti
Se l'amplificatore e i diffusore non sono collegati correttamente, "FAILURE" viene visualizzato nel display. In tal caso, accertarsi che l'amplificatore e il diffusore siano collegati correttamente.

Aansluitschema (3)

Ⓐ **Naar AMP REMOTE IN van een optionele eindversterker**
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het apparaat worden beschadigd.

Ⓑ **Naar het interface-snoer van een autotelefoon**

Waarschuwing

Indien u een elektrische antenne hebt zonder relaiskast, kan het aansluiten van deze eenheid met het bijgeleverde netsnoer Ⓒ de antenne beschadigen.

Opmerkingen over de bedienings- en voedingskabels
- *De antennevoedingskabel (blauw) levert +12 V gelijkstroom wanneer u de tuner inschakelt of de AF (Alternative Frequency) of TA (Traf c Announcement) functie activeert.*
- *Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/zijruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsingang van de bestaande antenneversterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een automatische antenne zonder relaiskast te gebruiken.*

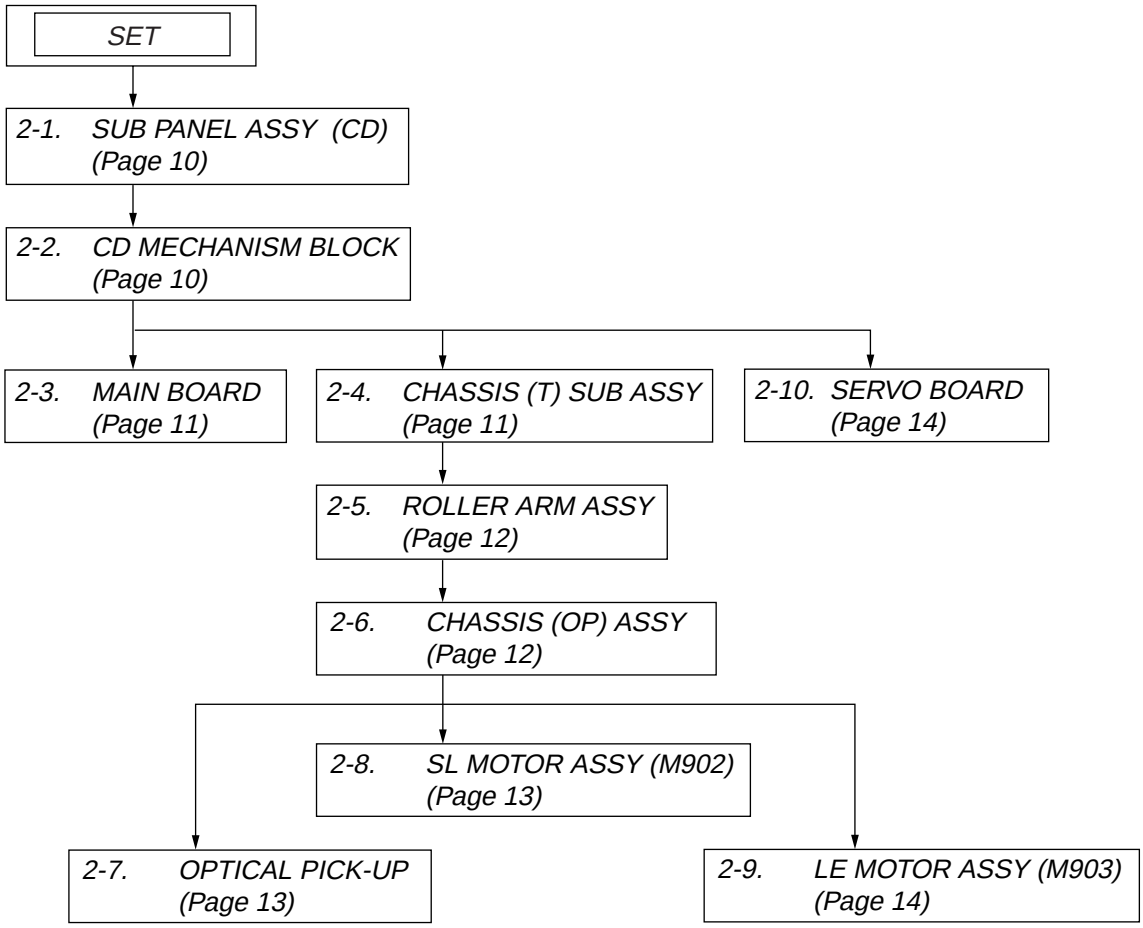
Instandhouden van het geheugen
Zolang de gele stroomdraad is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer het contact van de auto wordt uitgeschakeld.

Opmerkingen betreffende het aansluiten van de luidsprekers
- *Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.*
- *Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter- en linkerluidspreker niet op elkaar aan.*
- *Verbind de aarddraad van dit apparaat niet met de negatieve (–) aansluiting van de luidspreker.*
- *Probeer nooit de luidsprekers parallel aan te sluiten.*
- *Sluit geen actieve luidsprekers (met ingebouwde versterkers) aan op de luidspreker-aansluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.*
- *Om defecten te vermijden mag u de bestaande luidsprekerbedrading in uw auto niet gebruiken wanneer er een gemeenschappelijke negatieve (–) draad is voor de rechter- en linkerluidsprekers.*
- *Verbind de luidsprekerdraden niet met elkaar.*

Opmerking over aansluiten
Als de luidspreker en versterker niet correct zijn aangesloten, wordt "FAILURE" in het display weergegeven. In dit geval moet u zorgen dat de luidspreker en versterker correct zijn aangesloten.

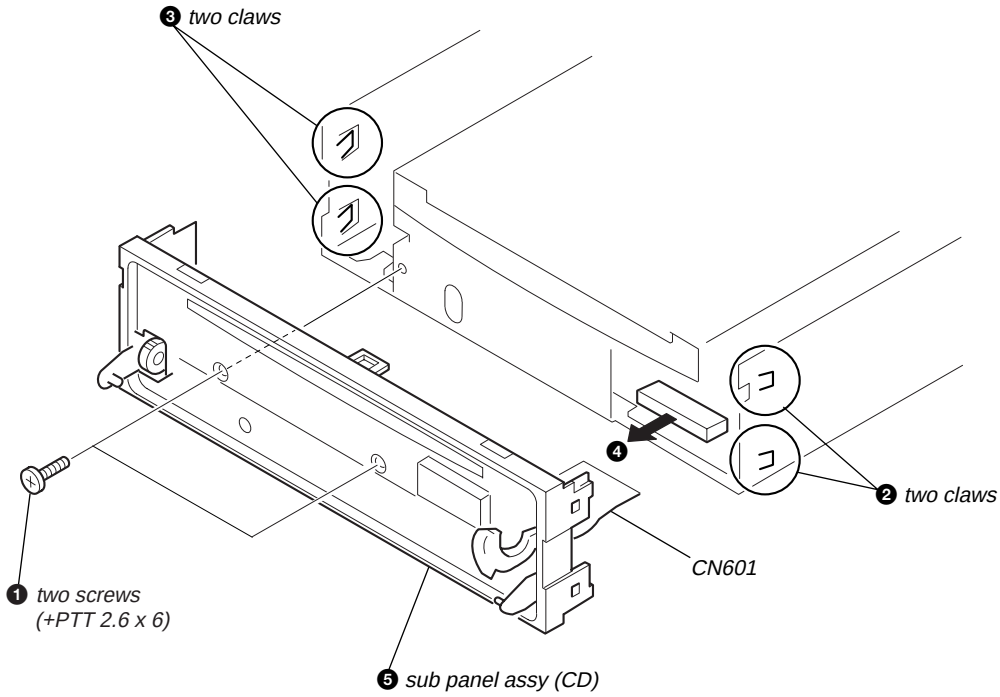
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

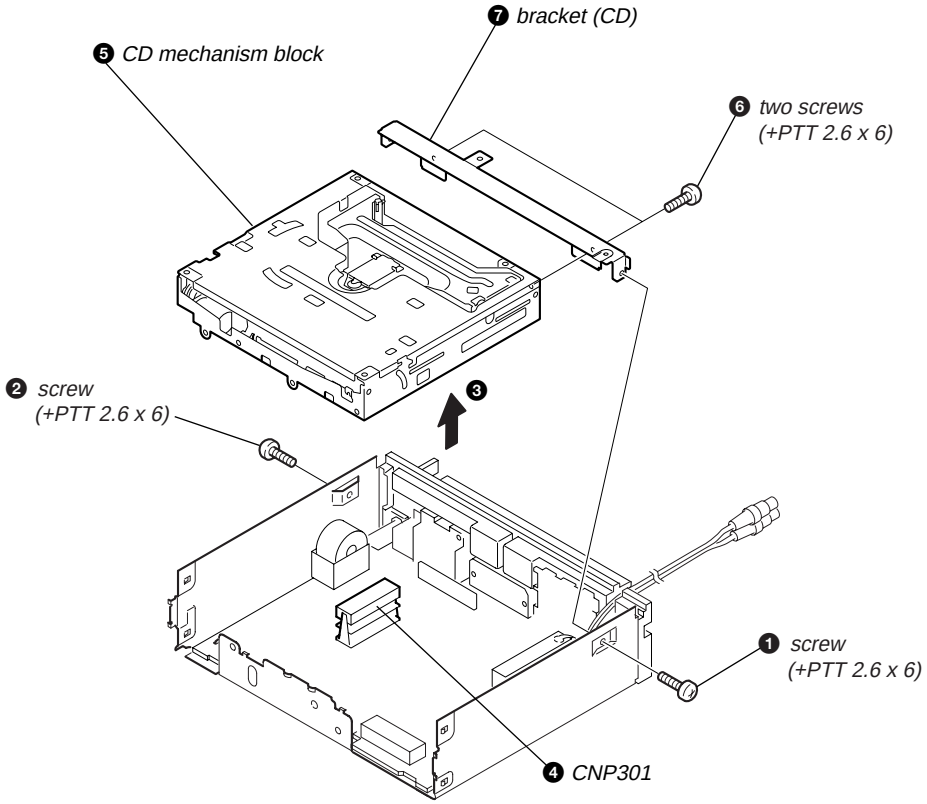

SET
2-1. SUB PANEL ASSY (CD) (Page 10)
2-2. CD MECHANISM BLOCK (Page 10)
2-3. MAIN BOARD (Page 11)
2-4. CHASSIS (T) SUB ASSY (Page 11)
2-10. SERVO BOARD (Page 14)
2-5. ROLLER ARM ASSY (Page 12)
2-6. CHASSIS (OP) ASSY (Page 12)
2-8. SL MOTOR ASSY (M902) (Page 13)
2-7. OPTICAL PICK-UP (Page 13)
2-9. LE MOTOR ASSY (M903) (Page 14)

Note : Follow the disassembly procedure in the numerical order given.

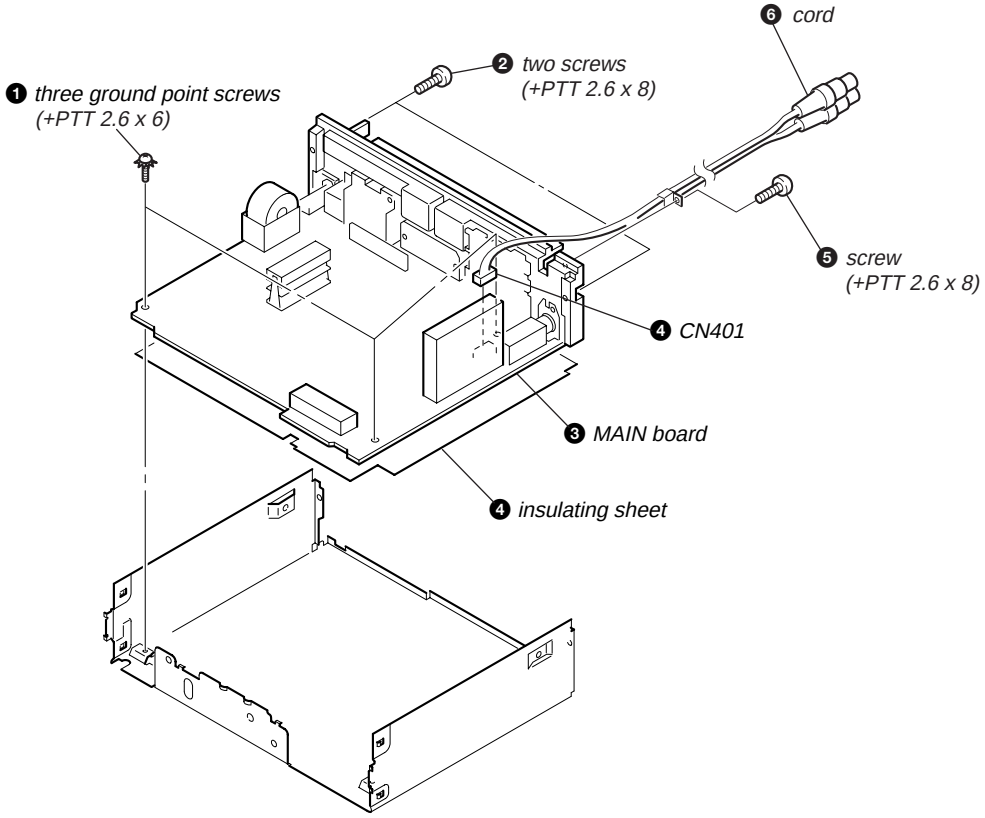
2-1. SUB PANEL ASSY (CD)



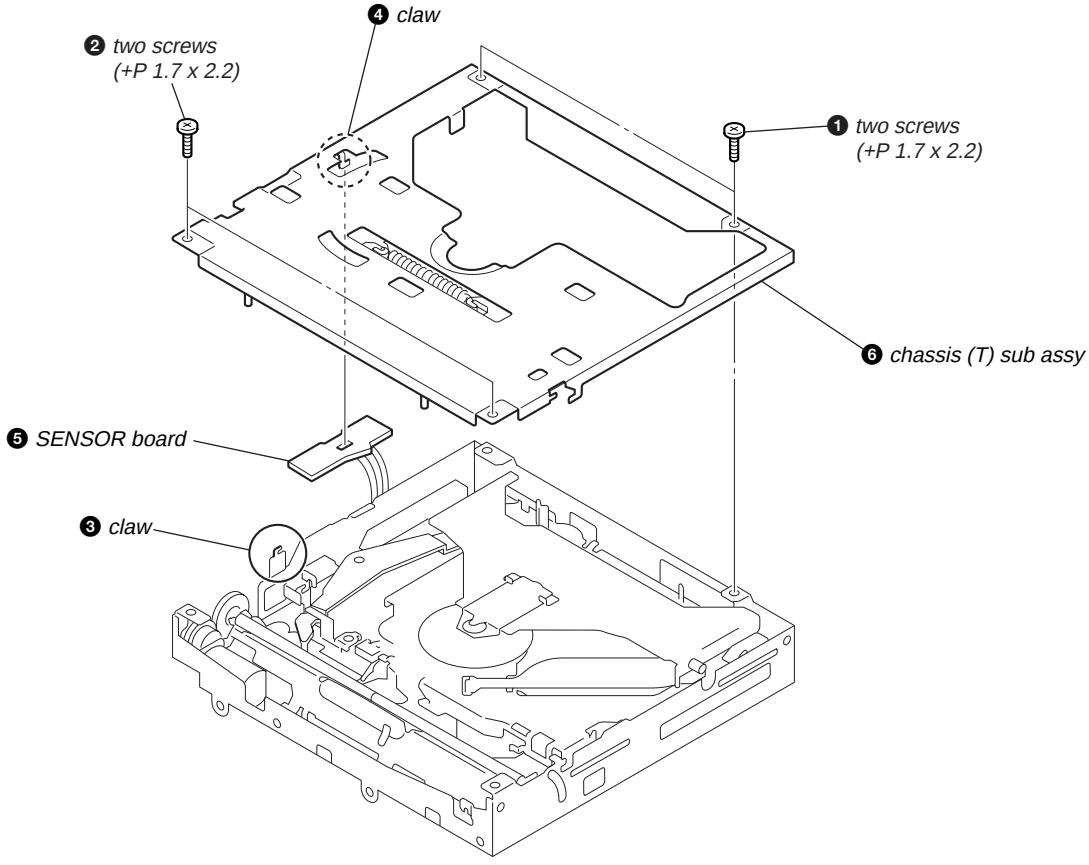
2-2. CD MECHANISM BLOCK



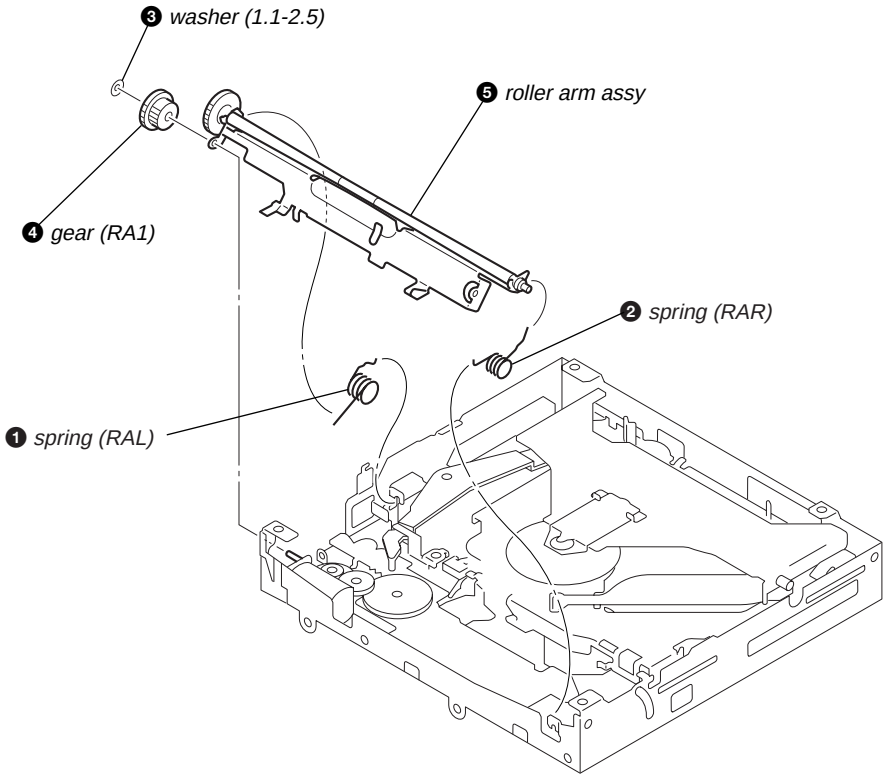
2-3. MAIN BOARD



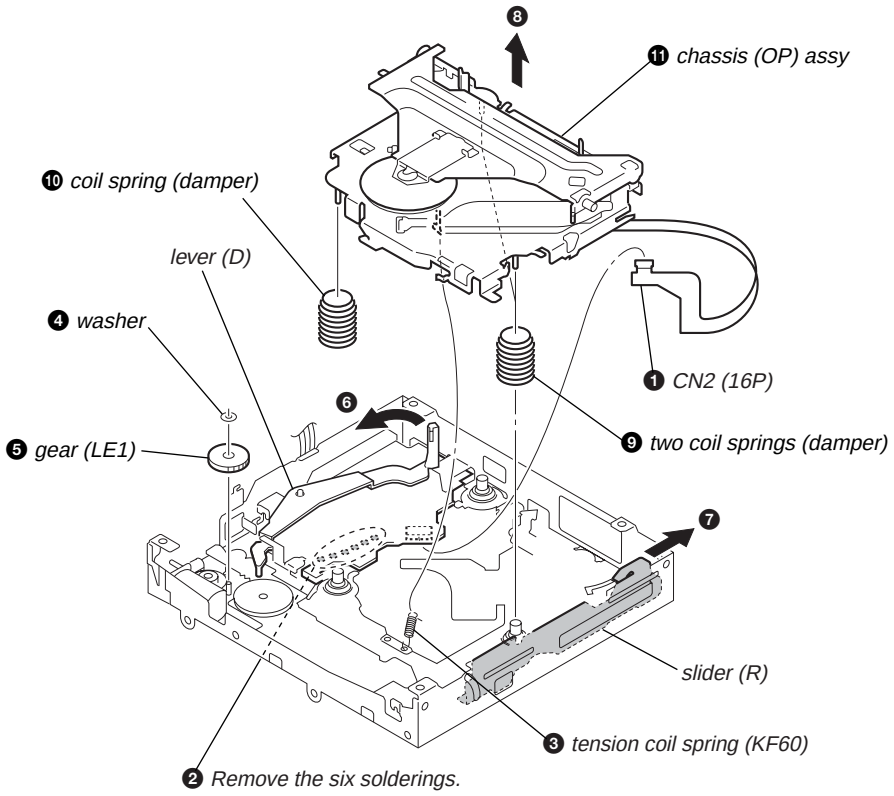
2-4. CHASSIS (T) SUB ASSY



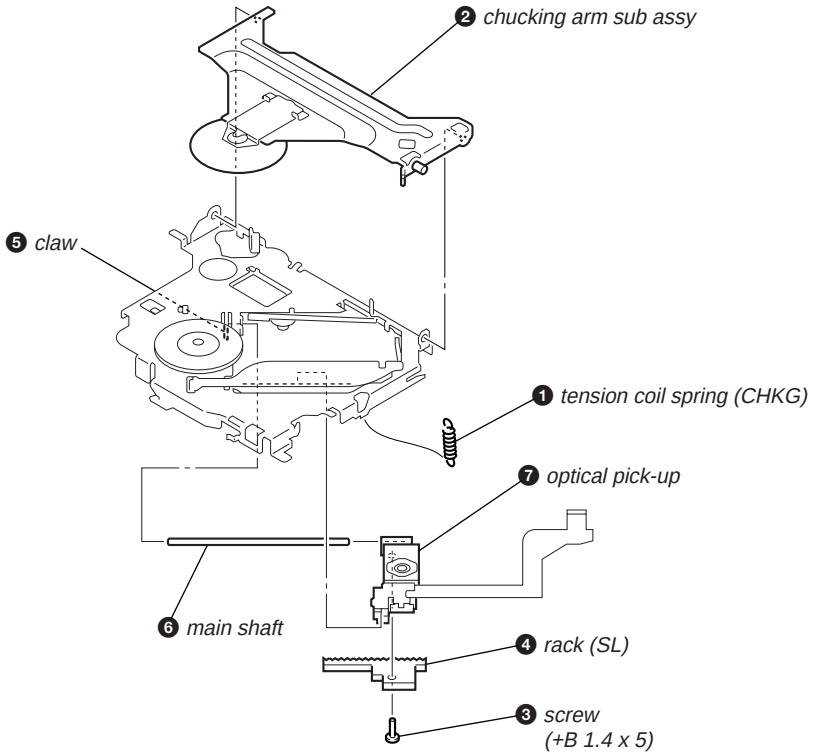
2-5. ROLLER ARM ASSY



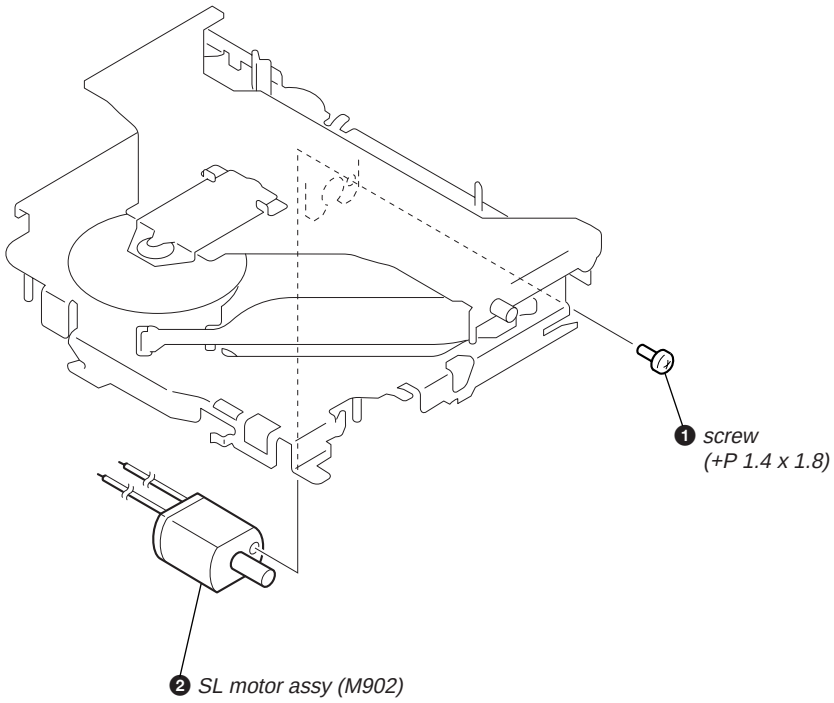
2-6. CHASSIS (OP) ASSY



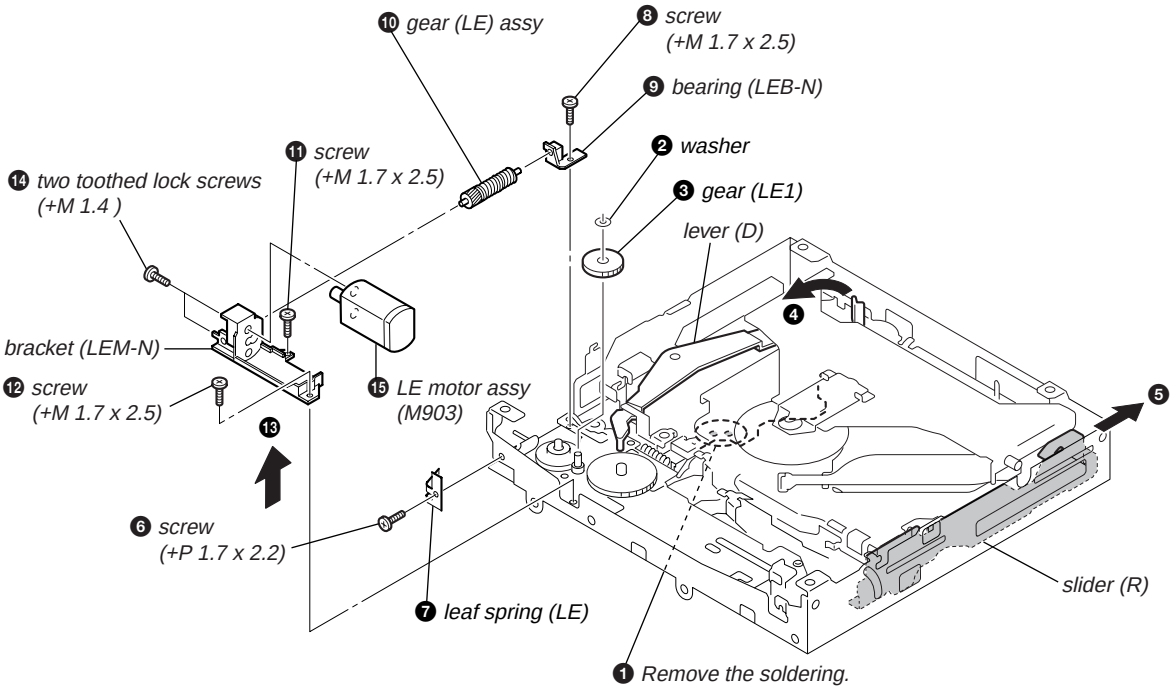
2-7. OPTICAL PICK-UP



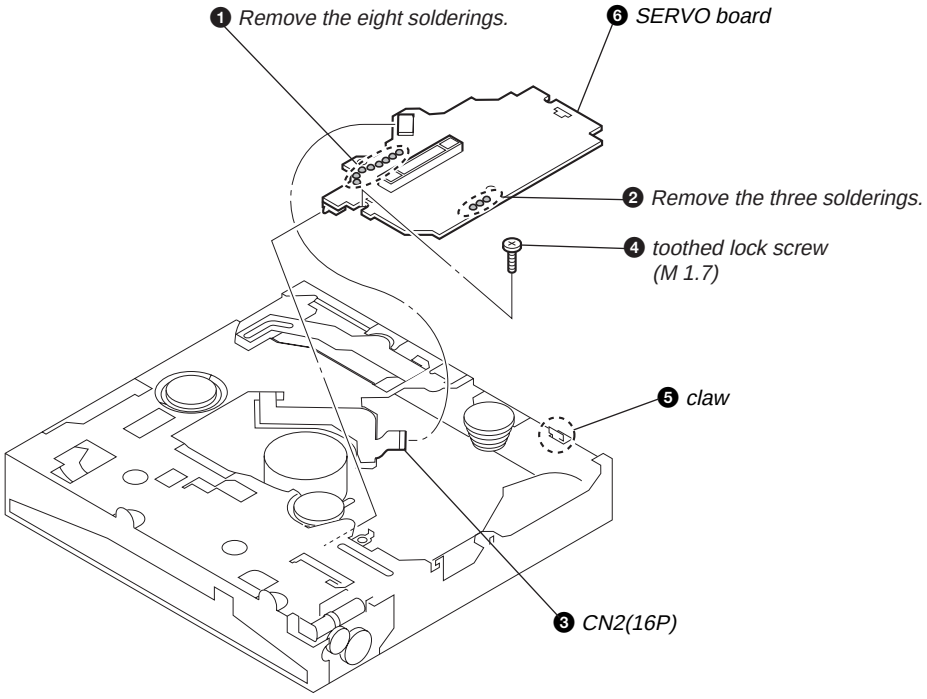
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

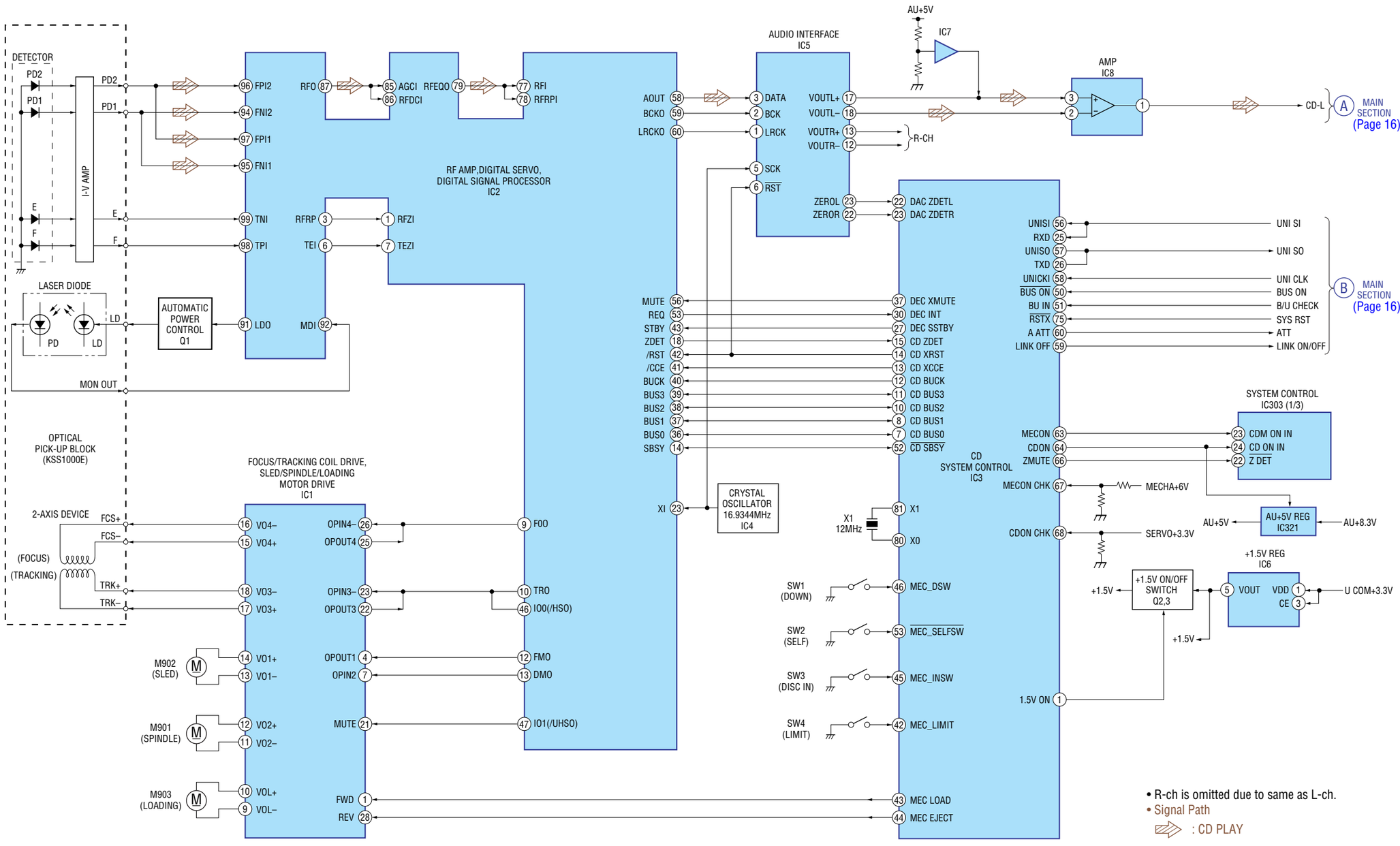


2-10. SERVO BOARD



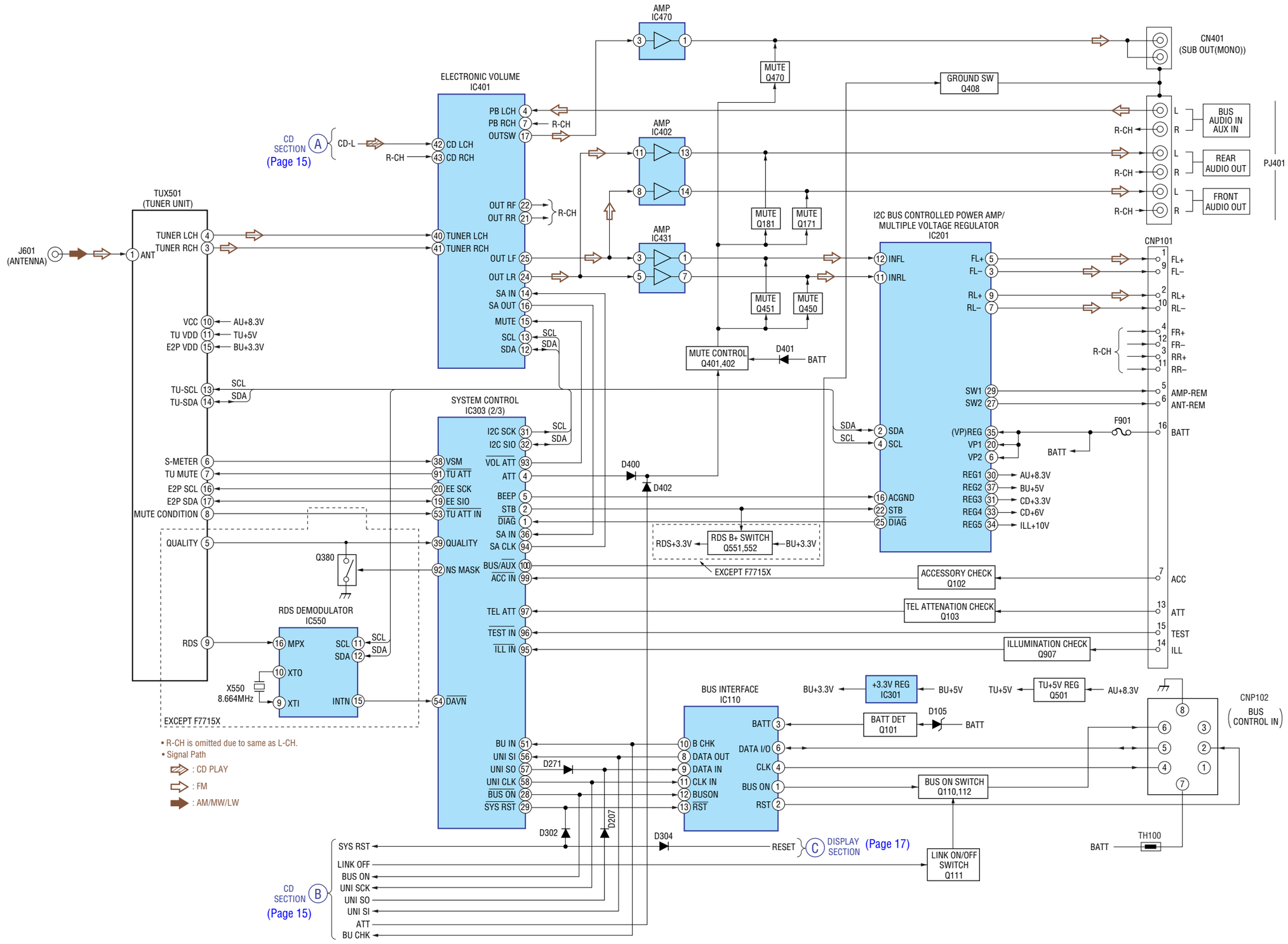
SECTION 3
DIAGRAMS

3-1. BLOCK DIAGRAM — CD SECTION —

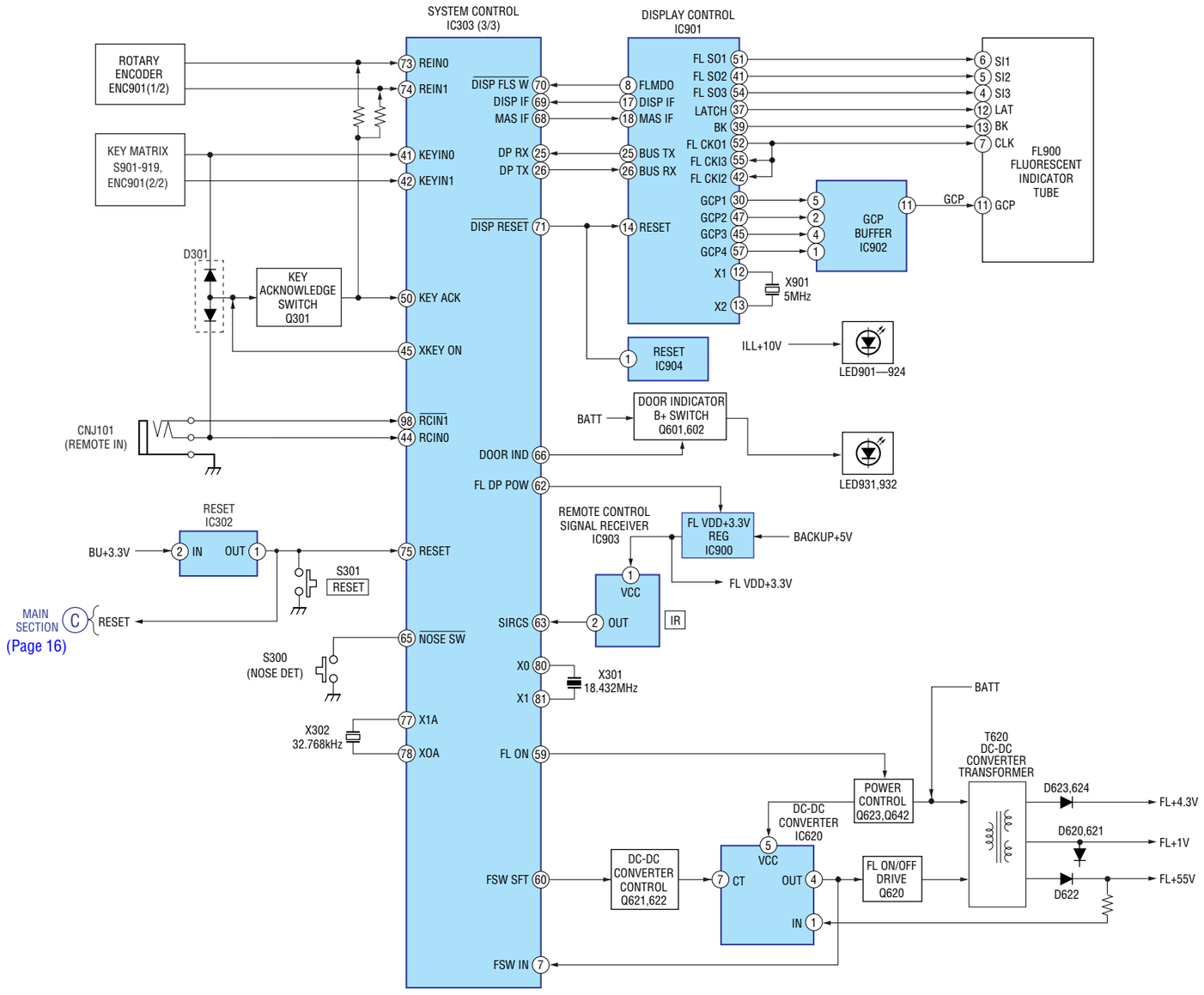


• R-ch is omitted due to same as L-ch.
• Signal Path
: CD PLAY

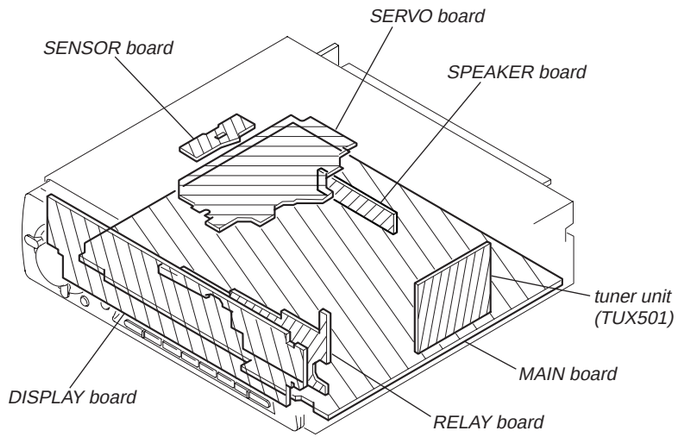
3-2. BLOCK DIAGRAM — MAIN SECTION —



3-3. BLOCK DIAGRAM — DISPLAY SECTION —



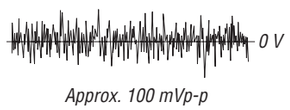
3-4. CIRCUIT BOARDS LOCATION



• WAVEFORMS

— SERVO BOARD — (CD PLAY)

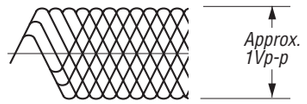
① IC2 ④ (FEI)



Approx. 100 mVp-p

50 mV/DIV, 5 msec/DIV

④ IC2 ⑰ (RFI)



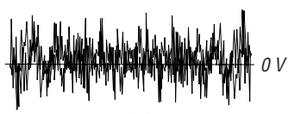
0.5 V/DIV, 0.5 µsec/DIV

⑦ IC3 ⑧① (X1)

12 MHz

0.5 V/DIV, 0.2 µsec/DIV

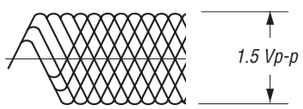
② IC2 ⑥ (TEI)



Approx. 400 mVp-p

200 mV/DIV, 5 msec/DIV

⑤ IC2 ⑨④ (FNI2), ⑨⑤ (FNI1)



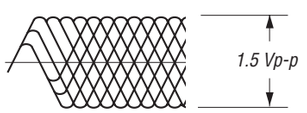
0.5 V/DIV, 0.5 µsec/DIV

③ IC2 ㉓ (XI)

16.9344 MHz

0.2 V/DIV, 0.2 µsec/DIV

⑥ IC2 ⑨⑥ (FPI2), ⑨⑦ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main (1/4), (2/4), (3/4), (4/4) and Display sections
  no mark : FM
  ( ) : AM/MW/LW
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM/MW/LW
  ⇨ : BUS AUDIO

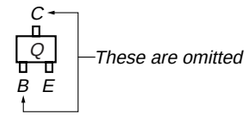
For printed wiring boards.

Note:

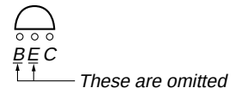
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

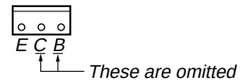
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



These are omitted



These are omitted



These are omitted

— MAIN BOARD —

① IC550 ⑨ (XTI)

8.664 MHz

0.5 V/DIV, 0.2 µsec/DIV

③ IC801 ⑧⓪(X0)

18.432 MHz

0.5 V/DIV, 0.1 µsec/DIV

② IC303 ⑦⑧ (X1)

32.768 kHz

0.2 V/DIV, 20 µsec/DIV

— DISPLAY BOARD —

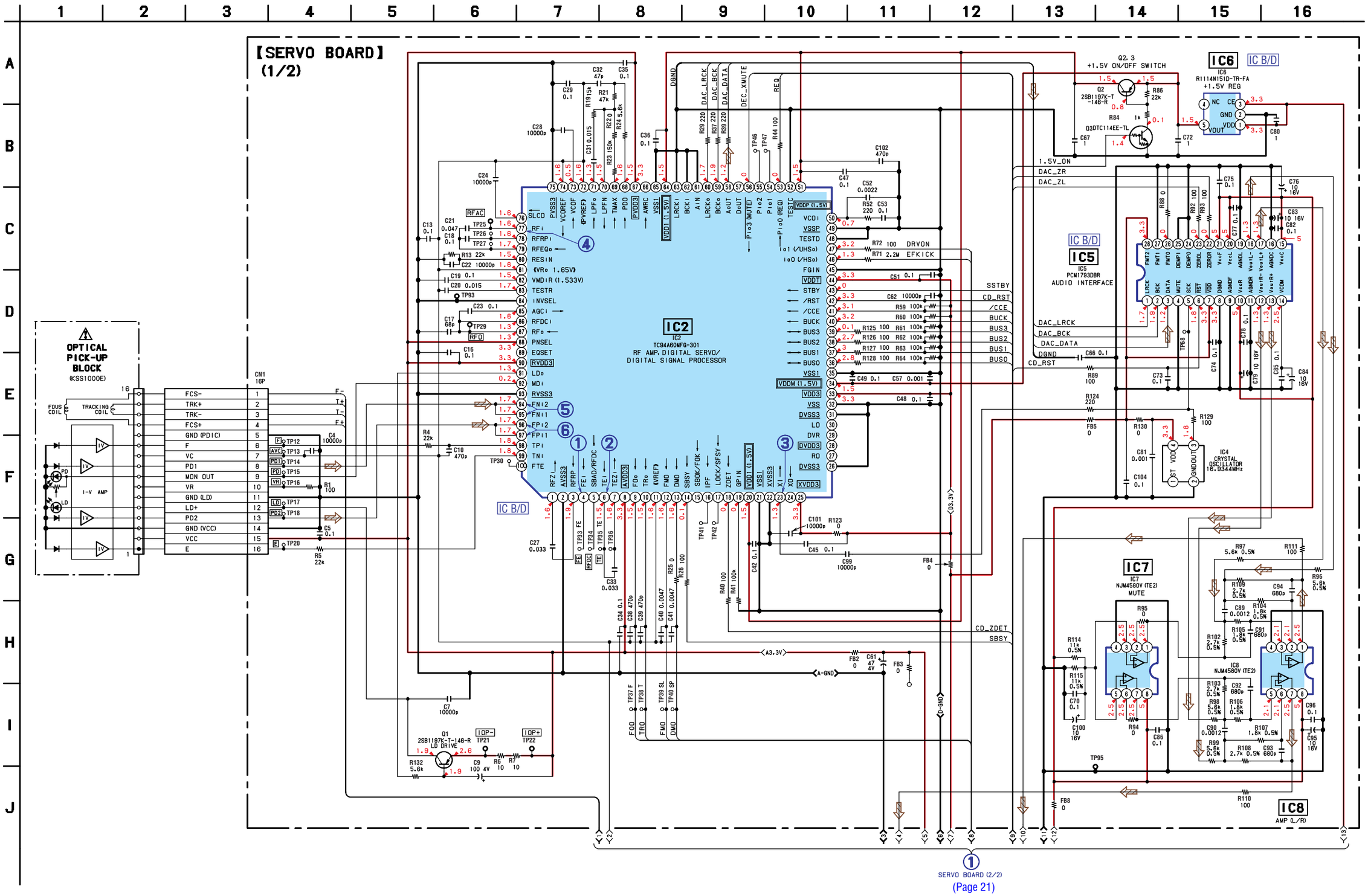
① IC901 ⑫ (X1)

5 MHz

0.2 V/DIV, 0.2 µsec/DIV

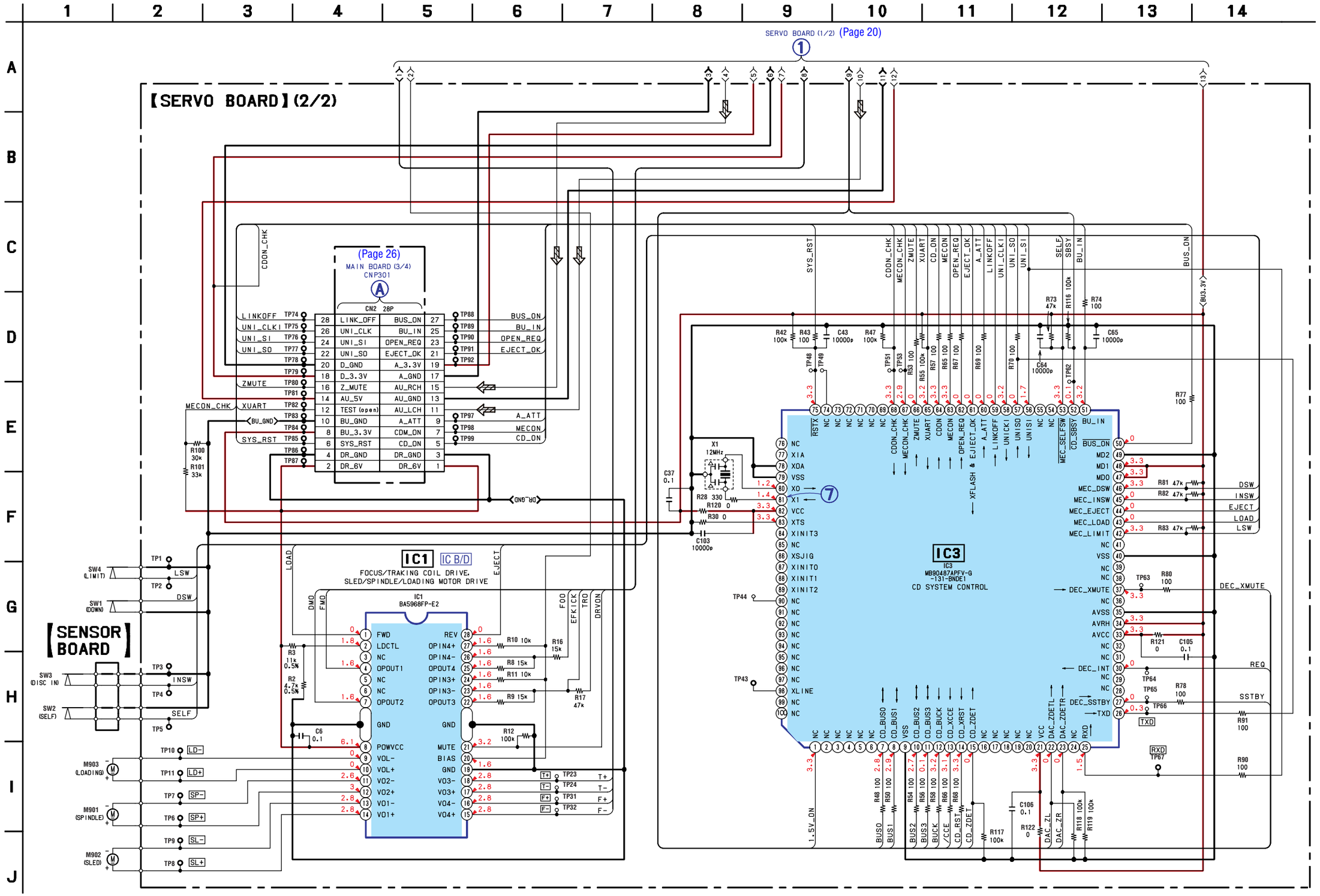
3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 18 for Waveforms.
• Refer to page 31 for IC Block Diagrams.



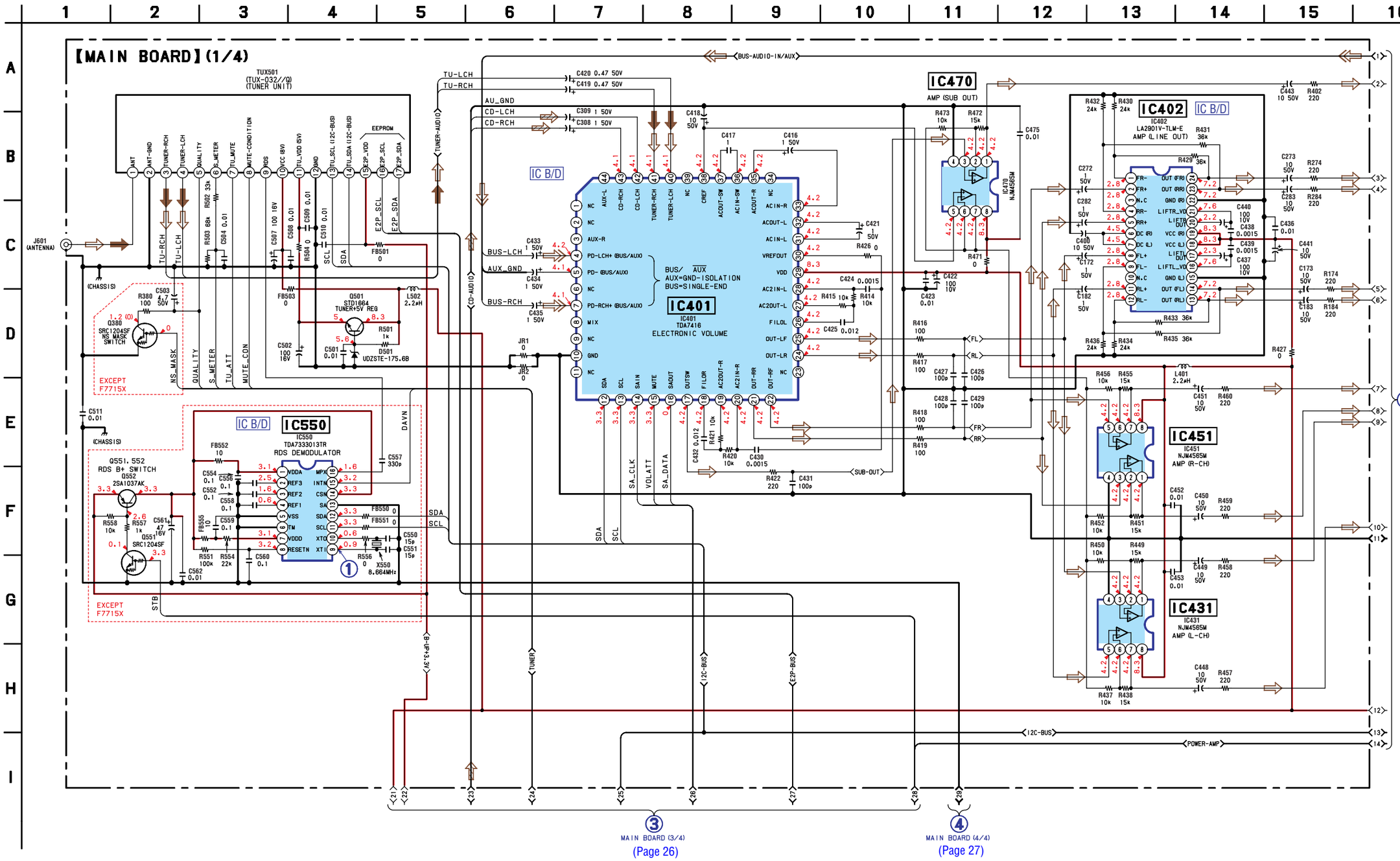
• Refer to page 18 for Waveform.
• Refer to page 32 for IC Block Diagram.
• Refer to page 36 for IC Pin Description.

3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

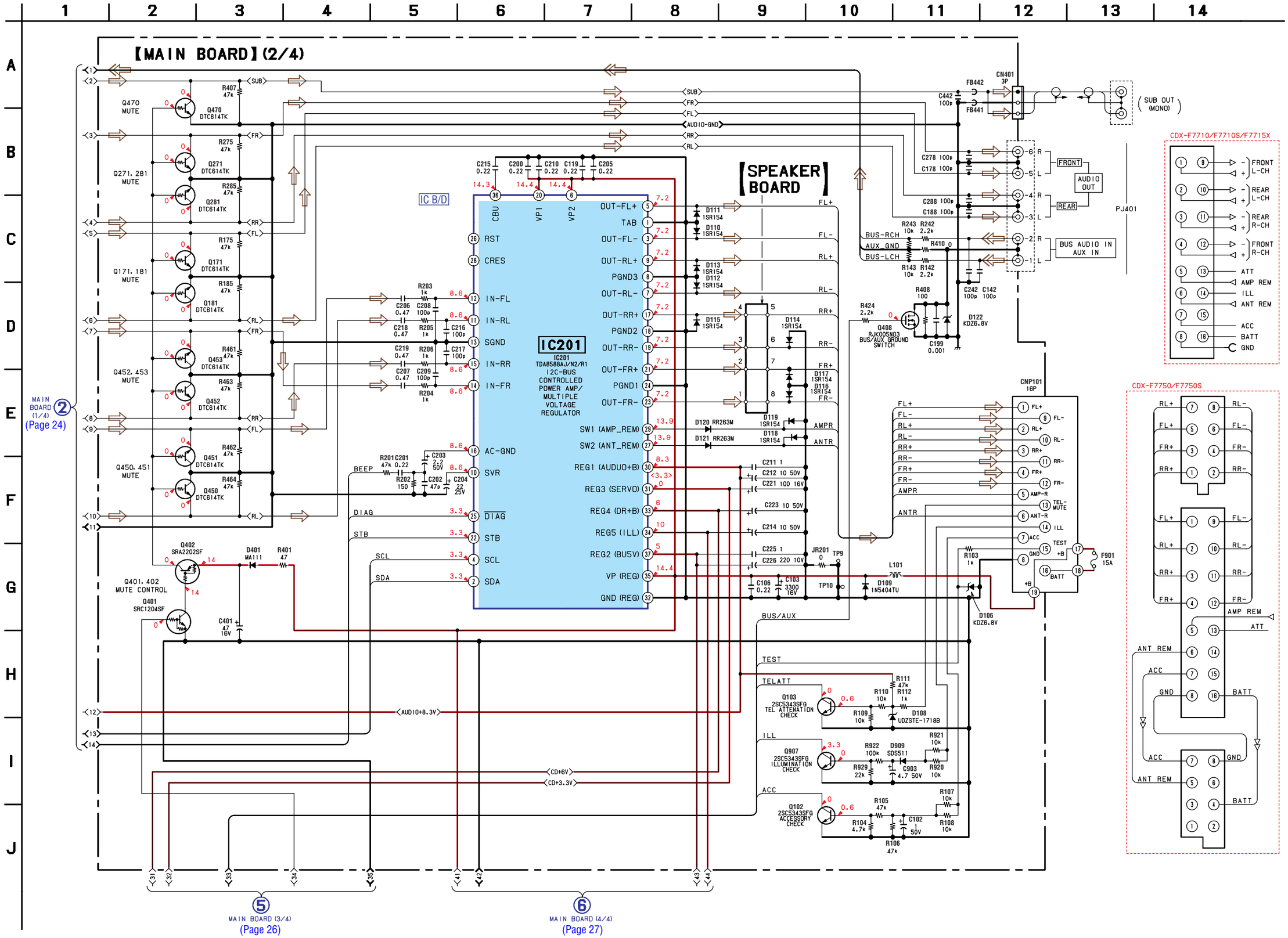


3-9. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) —

- Refer to page 18 for Waveform.
- Refer to page 33 for IC Block Diagrams.

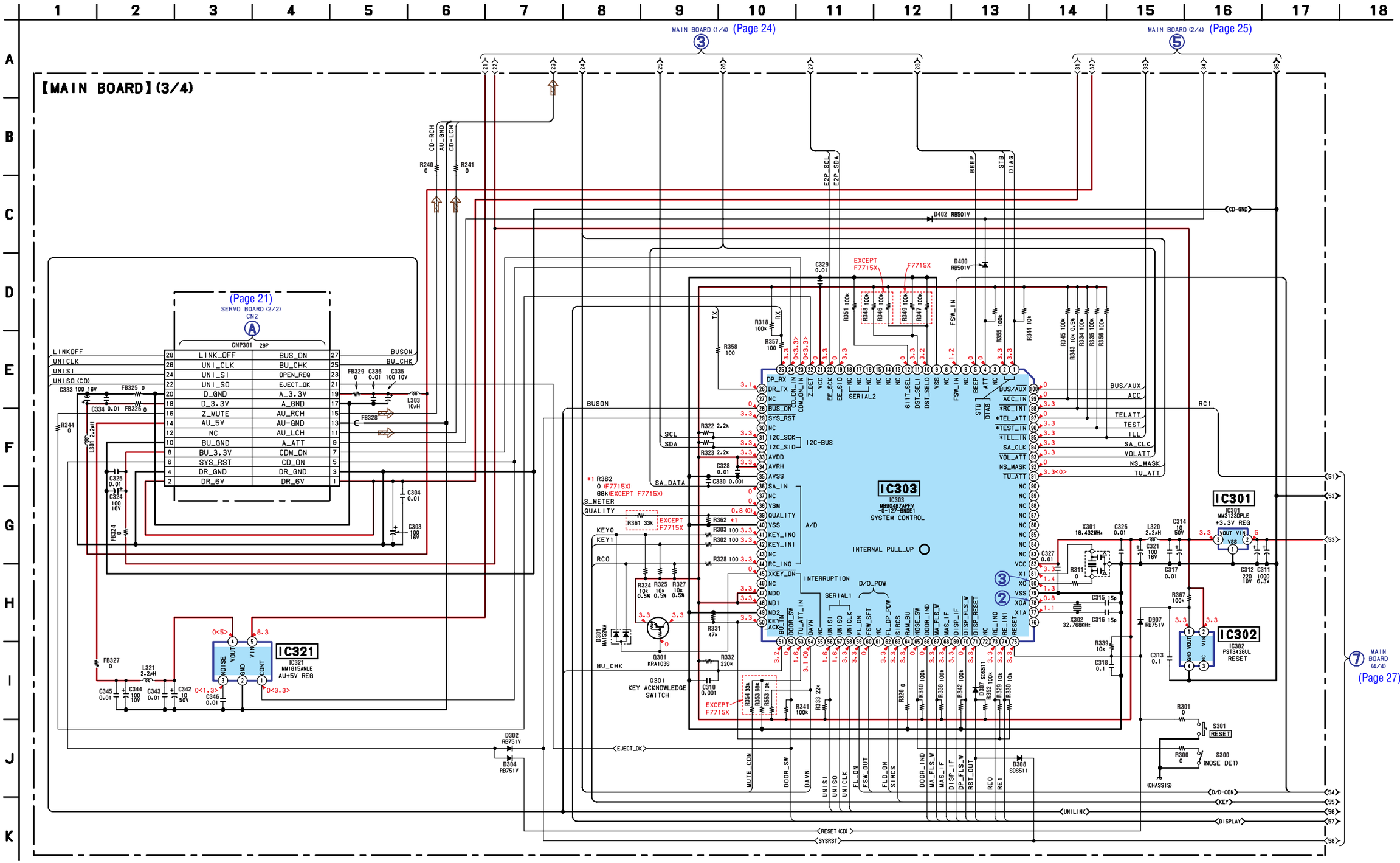


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) — • Refer to page 35 for IC Block Diagram.

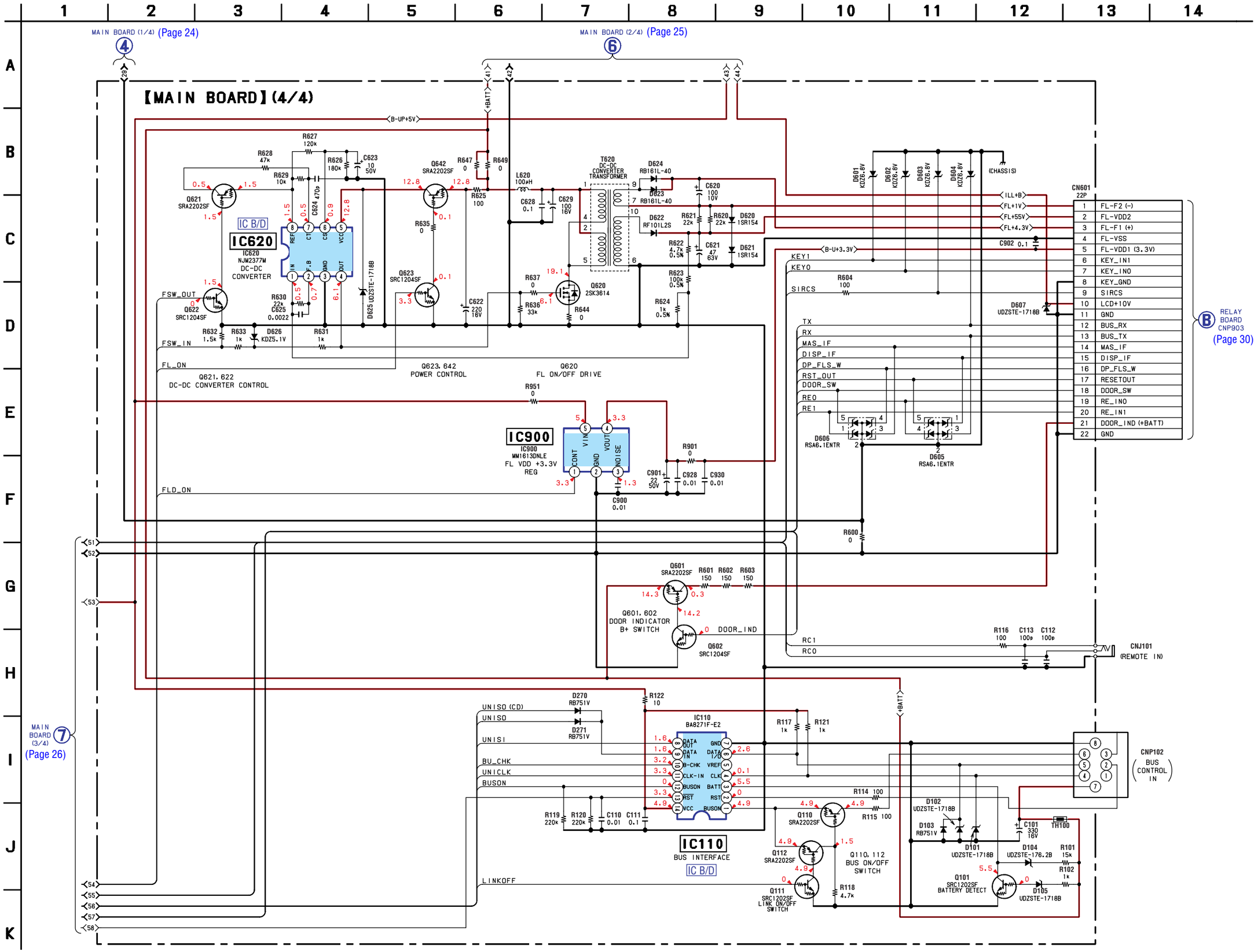


3-11. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) —

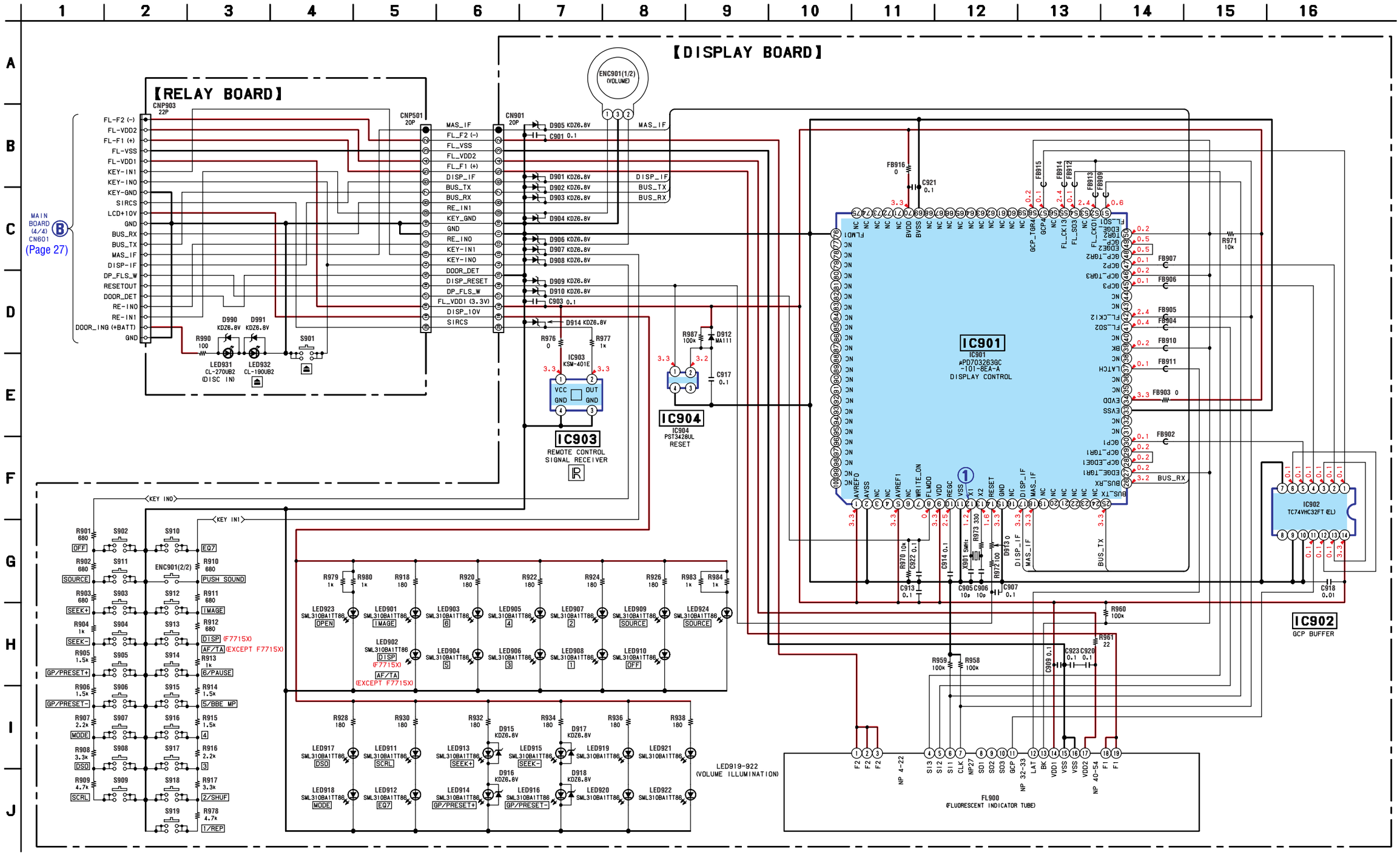
- Refer to page 18 for Waveforms.
- Refer to page 38 for IC Pin Description.



3-12. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) — • Refer to page 33 for IC Block Diagrams.

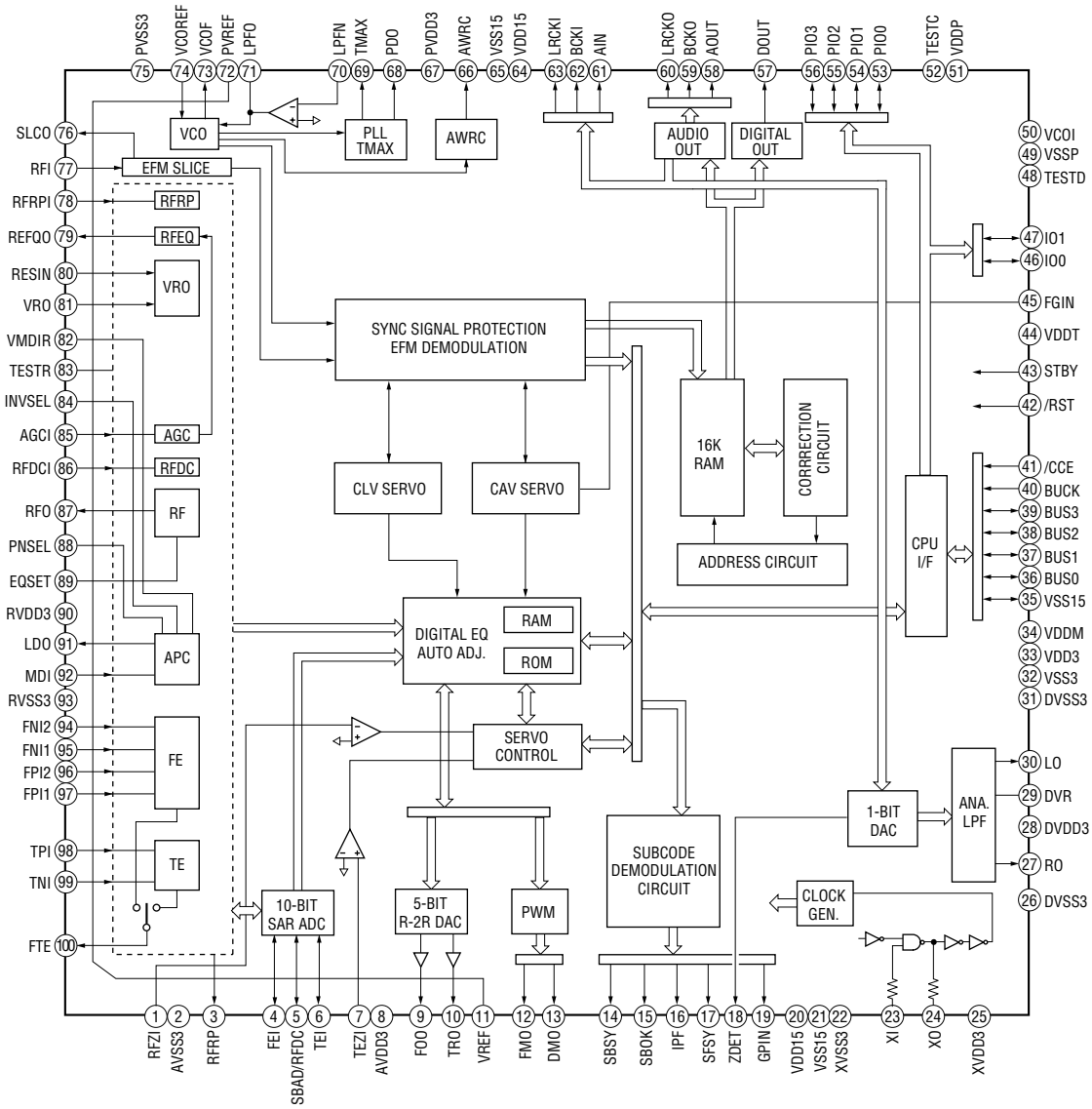


3-15. SCHEMATIC DIAGRAM — DISPLAY SECTION — • Refer to page 18 for Waveform.

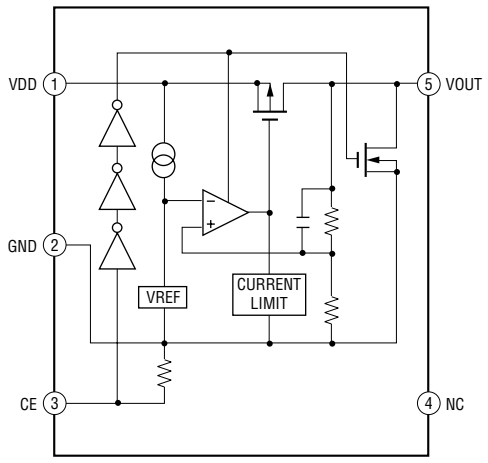


• IC BLOCK DIAGRAMS

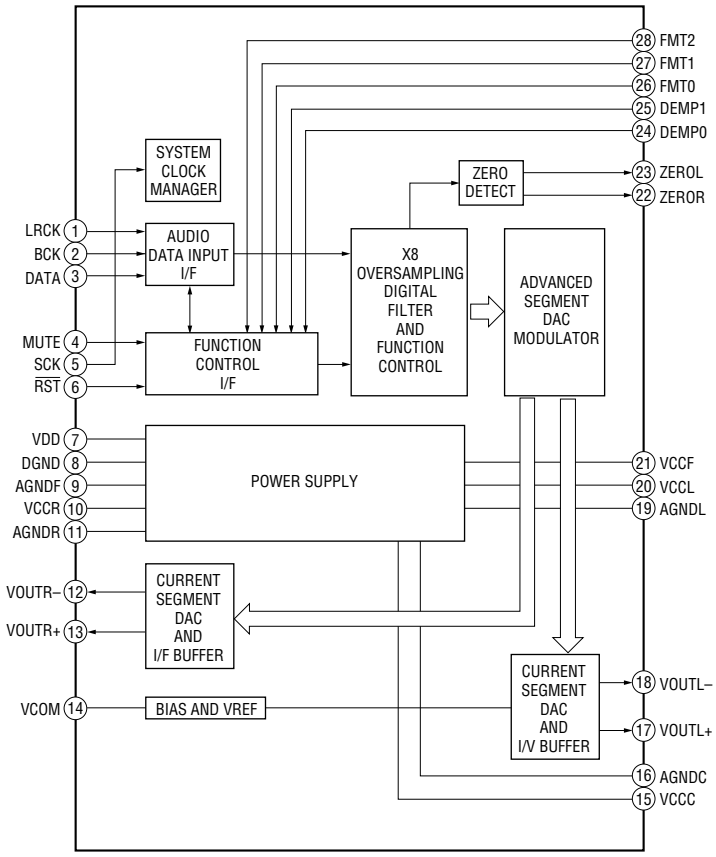
IC2 TC94A60MFG-301 (SERVO Board (1/2))



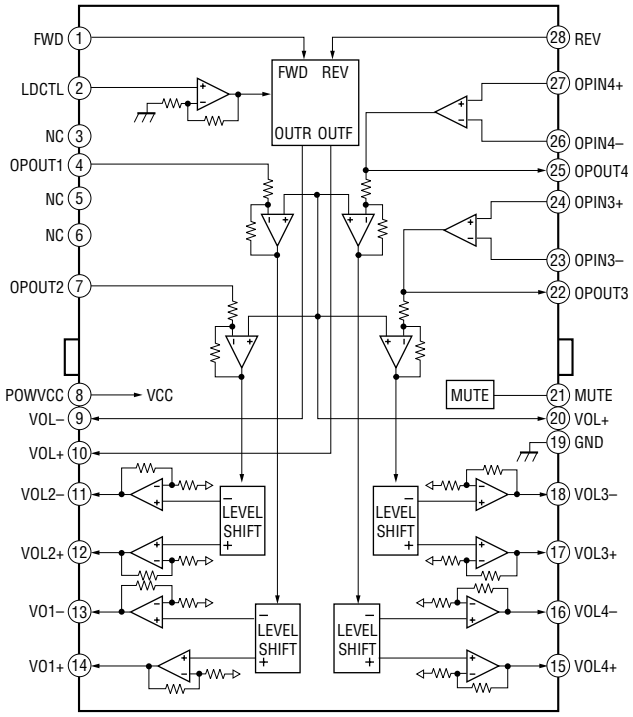
IC6 R1114N151D-TR-FA (SERVO Board (1/2))



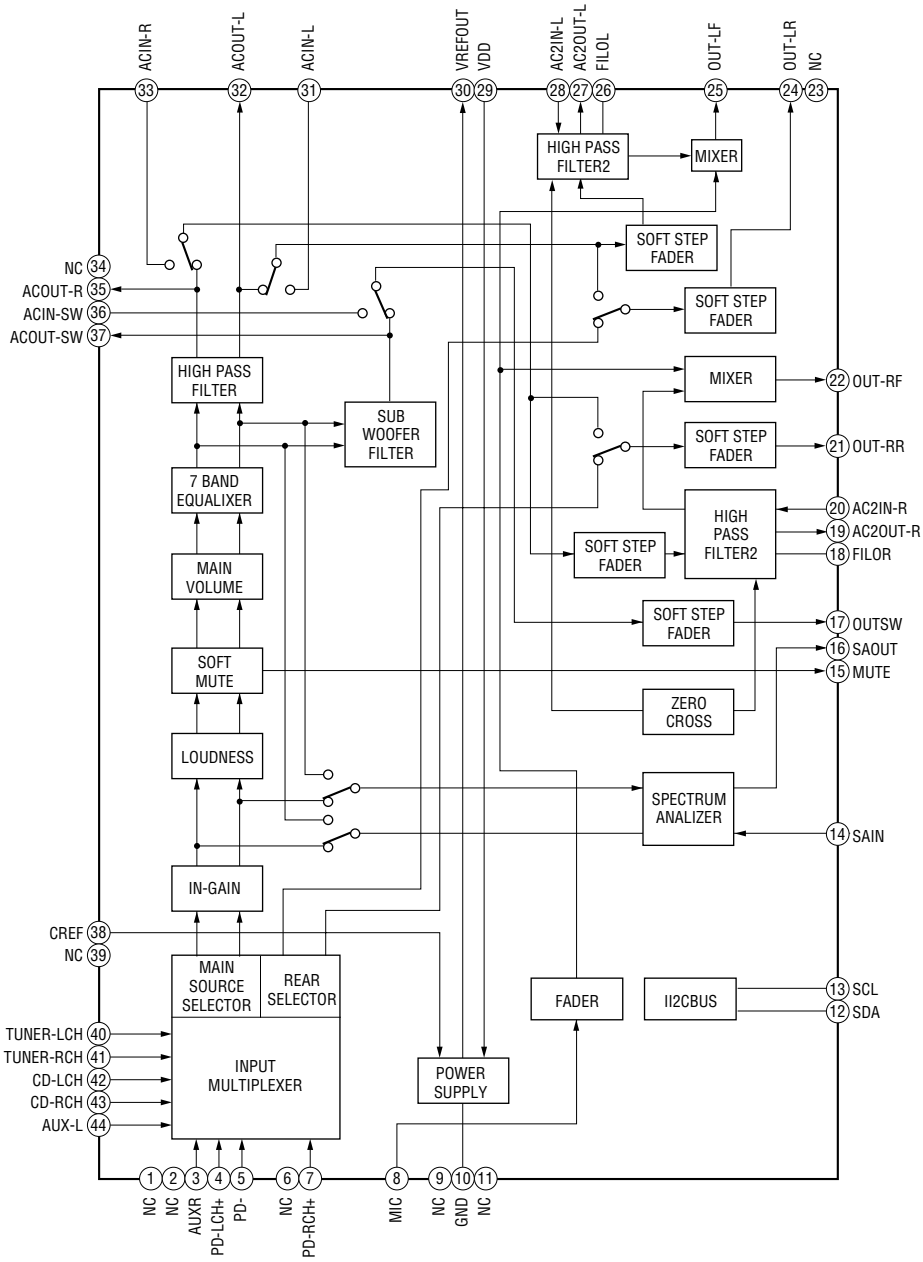
IC5 PCM1793DBR (SERVO Board (1/2))



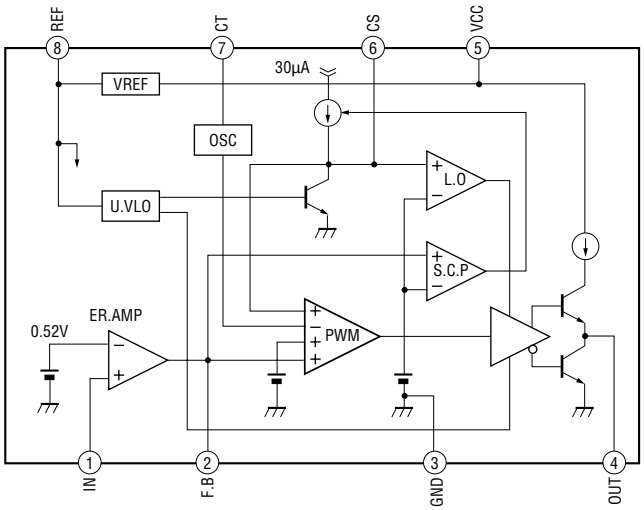
IC1 BA5968FP-E2 (SERVO Board (2/2))



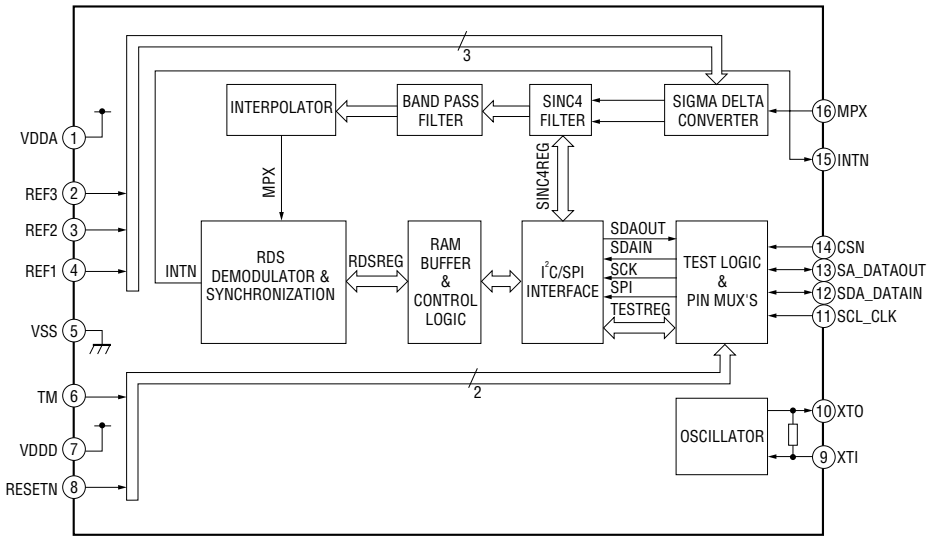
IC401 TDA7416 (MAIN Board (1/4))



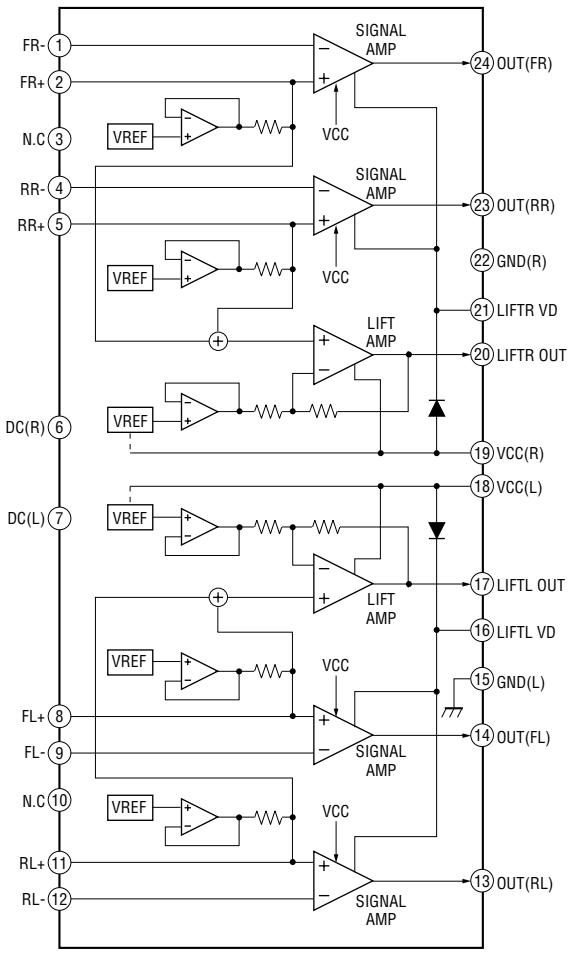
IC620 NJM2377M (TE2) (MAIN Board (4/4))



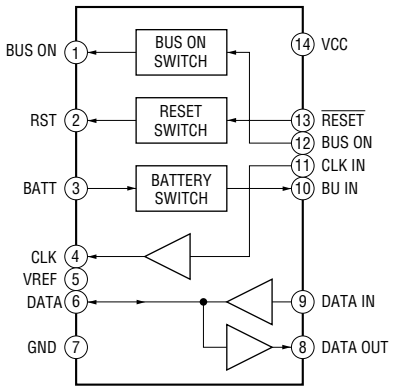
IC550 TDA7333013TR (MAIN Board (1/4))



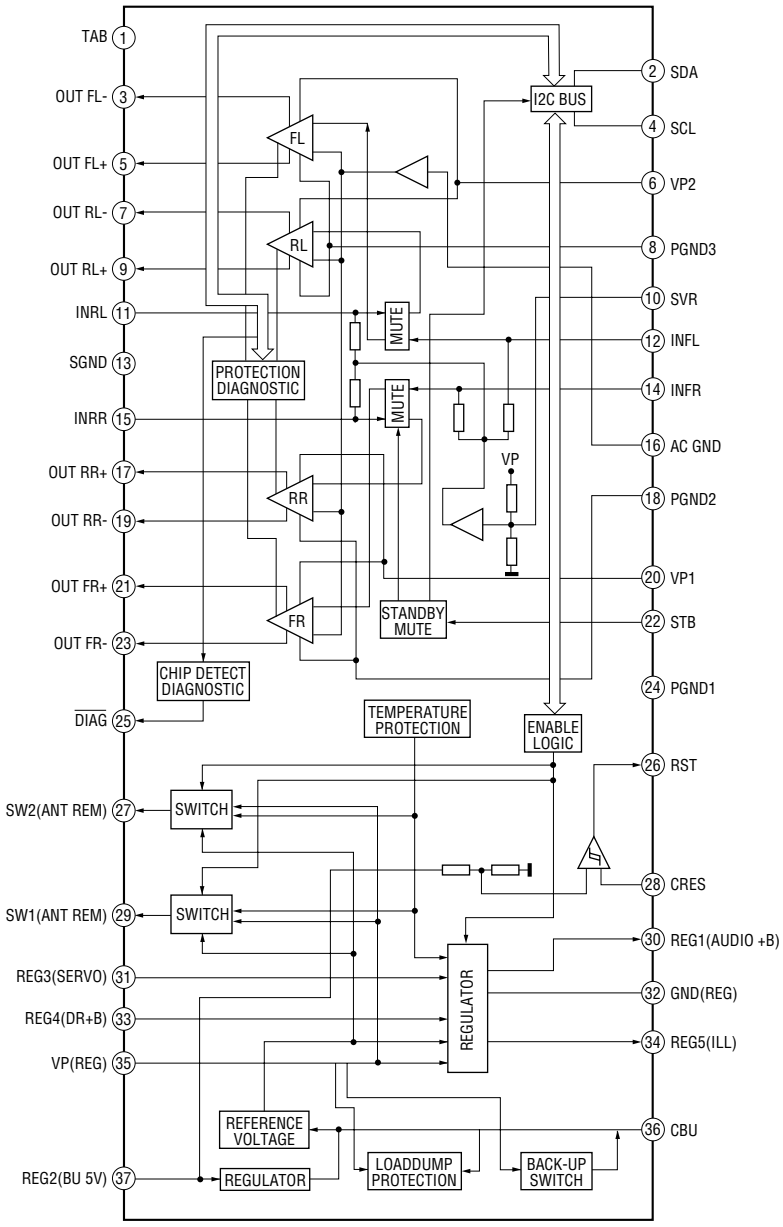
IC402 LA2901V-TL (MAIN Board (1/4))



IC110 BA8271F-E2 (MAIN Board (4/4))



IC201 TDA8588AJ/N2/R1 (MAIN Board (2/4))



• IC PIN DESCRIPTIONS

• IC3 MB90487APFV-G-131-BNDE1 (CD SYSTEM CONTROL) (SERVO BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	NC	O	Servo 1.5 V power supply control signal output
2 to 6	NC	—	Not used. (Open)
7	CD BUS0	I/O	Bus data signal input/output 0
8	CD BUS1	I/O	Bus data signal input/output 1
9	VSS	—	Ground pin
10	CD BUS2	I/O	Bus data signal input/output 2
11	CD BUS3	I/O	Bus data signal input/output 3
12	CD BUCK	O	Bus clock signal output
13	CD XCCE	O	Chip enable signal output
14	CD XRST	O	Reset signal output
15	CD ZDET	I	Zero detection signal input
16 to 20	NC	—	Not used. (Open)
21	VCC	—	Power supply pin (+3.3 V)
22	DAC ZDETL	I	Zero data detection signal input (L-ch)
23	DAC ZDETR	I	Zero data detection signal input (R-ch)
24	NC	—	Not used. (Open)
25	RXD	I	UART RXD data signal input (MCBUS/Flash data input)
26	TXD	O	UART TXD data signal output (MCBUS/Flash data output)
27	DEC SSTBY	O	SRAM STANDBY mode control signal output
28, 29	NC	—	Not used. (Open)
30	DEC INT	I	Request signal input
31, 32	NC	—	Not used. (Open)
33	AVCC	—	Power supply pin (+3.3 V) for A/D converter
34	AVRH	—	External reference voltage for A/D converter
35	AVSS	—	Ground pin
36	NC	—	Not used. (Open)
37	DEC XMUTE	O	Mute signal output L: mute
38, 39	NC	—	Not used. (Open)
40	VSS	—	Ground pin
41	NC	—	Not used. (Open)
42	MEC LIMIT	I	Sled limit in detection switch signal input
43	MEC LOAD	O	Loading motor signal output (Load direction)
44	MEC EJECT	O	Loading motor signal output (Eject direction)
45	MEC INSW	I	Pack-in detection signal input
46	MEC DSW	I	Chucking end detection switch signal input
47, 48	MD0, MD1	I	CPU operation mode designation signal input (Connect to Vcc.)
49	MD2	I	CPU operation mode designation signal input (Connect to Vss.)
50	$\overline{\text{BUS ON}}$	I	Bus on signal input L: bus on
51	BU IN	I	Backup on/off signal input H: backup on, L: backup off
52	$\overline{\text{CD SBSY}}$	I	SUBQ sync signal input L: interruption
53	$\overline{\text{MEC SELFSW}}$	I	Disc insert detection switch signal input L: disc in interruption
54, 55	NC	—	Not used. (Open)
56	UNISI	I	Serial data signal input
57	UNISO	O	Serial data signal output
58	UNICKI	I	Serial clock signal input
59	LINEOFF	O	Line off signal output
60	A ATT	O	Audio attenuation signal output H: ATT on
61	EJECT OK	I	Front panel open signal input H: eject
62	OPEN REQ	O	Front panel open/close request signal output H: open request
63	MECON	O	Mechanism deck power supply control signal output
64	CDON	O	Servo power supply control signal output

Pin No.	Pin Name	I/O	Pin Description
65	XUART	I	Sony-Bus/MC-Bus change signal input H: Sony-Bus, L: MC-Bus
66	ZMUTE	O	Zero detection mute signal output
67	MECON CHK	I	MECON rising detection signal input
68	CDON CHK	I	CDON rising detection signal input
69 to 74	NC	—	Not used. (Open)
75	$\overline{\text{RSTX}}$	I	System reset signal input
76	NC	—	Not used. (Open)
77	X1A	—	Sub-clock connect pin Not used in this set. (Open)
78	X0A	—	Sub-clock connect pin Not used in this set. (Connect to Vss.)
79	VSS	—	Ground pin
80	X0	I	Main-clock connect pin (12 MHz)
81	X1	O	Main-clock connect pin (12 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83	XTS	I	Not used in this set. (Open)
84	XINIT3	I	Not used in this set. (Open)
85	NC	—	Not used. (Open)
86	XSJIG	I	Not used in this set. (Open)
87 to 89	XINIT0 to 2	I	Not used in this set. (Open)
90 to 97	NC	—	Not used. (Open)
98	XLINE	I	Not used in this set. (Open)
99, 100	NC	—	Not used. (Open)

• IC303 MB90487APFV-G-127-BNDE1 (SYSTEM CONTROL) (MAIN BOARD (3/4))

Pin No.	Pin Name	I/O	Pin Description
1	$\overline{\text{DIAG}}$	I	Power amplifier self diagnostic test functions signal input
2	STB	O	Power amplifier standby signal output
3	NC	—	Not used. (Open)
4	ATT	O	LINE mute control signal output
5	BEEP	O	Power amplifier beep signal output
6	NC	—	Not used. (Open)
7	FSW IN	I	FL switch signal input
8	NC	—	Not used. (Open)
9	VSS	—	Ground pin
10	DST SEL0	I	Distination select signal input 0
11	DST SEL1	I	Distination select signal input 1
12	611 SEL	I	611 CD mechanism type select signal input
13 to 18	NC	—	Not used. (Open)
19	EE SIO	I/O	EEPROM serial data signal input/output
20	EE SCK	O	EEPROM serial clock signal output
21	VCC	—	Power supply pin (+3.3 V)
22	$\overline{\text{Z DET}}$	I	611TA/TS CD mechanism type zero mute detect signal input
23	CDM ON IN	I	611TA/TS CD mechanism on/off signal input
24	CD ON IN	I	611TA/TS CD mechanism type CD on/off signal input
25	DP RX	I	Display microcomputer interface signal input
26	DP TR	O	Display microcomputer interface signal output
27	NC	—	Not used. (Open)
28	$\overline{\text{BUS ON}}$	O	Bus on/off signal output
29	$\overline{\text{SYS RST}}$	O	Bus system reset signal output
30	NC	—	Not used. (Open)
31	I2C SCK	O	I2C bus serial clock signal output
32	I2C SIO	I/O	I2C bus serial data signal input/output
33	AVDD	—	Power supply pin for A/D converter (+3.3 V)
34	AVRH	—	External reference power supply pin for A/D converter
35	AVSS	—	Ground pin for A/D converter
36	SA IN	I	Spectrum analyzer data signal input
37	NC	—	Not used. (Open)
38	VSM	I	S meter signal input
39	QUALITY	I	Tuner noise detect signal input (RDS model only)
40	VSS	—	Ground pin
41, 42	KEY IN0, 1	I	Key signal input
43	NC	—	Not used. (Open)
44	RC IN0	I	Rotary commander signal input
45	$\overline{\text{XKEY ON}}$	O	Key power supply control signal output Pin ⑤⓪ (KEY ACK) active: “L” output
46	NC	—	Not used. (Open)
47, 48	MD0, 1	I	Input for operation mode designation Fixed at “H”.
49	MD2	I	Input for operation mode designation Fixed at “L”.
50	KEY ACK	I	Key acknowledge detect signal input
51	BU IN	I	Backup power supply detect signal input
52	$\overline{\text{DOOR SW}}$	I	Door switch signal input
53	TU ATT IN	I	Tuner attenuate zero detect signal input
54	$\overline{\text{DAVN}}$	I	RDS block data detect signal input
55	NC	—	Not used. (Open)
56	UNISI	I	Bus serial data signal input
57	UNISO	O	Bus serial data signal output
58	UNICLK	O	Bus serial clock signal output
59	FL ON	O	DC/DC converter power on signal output

Pin No.	Pin Name	I/O	Pin Description
60	FSW SFT	O	DC/DC converter frequency change signal output
61	NC	—	Not used. (Open)
62	FL DP POW	O	Power supply control signal output of FL driver IC and display microcomputer
63	SIRCS	I	Remote control signal (infrared rays) input
64	RAM BU	I	RAM backup signal input
65	$\overline{\text{NOSE SW}}$	I	Nose switch signal input
66	DOOR IND	O	Door indicator signal output
67	$\overline{\text{MA FLS W}}$	I	Memory mode changeover signal input Normally “H” input (Single chip mode), “L” after reset: Flash wright mode
68	MAS IF	O	Master microcomputer interface signal output
69	DISP IF	I	Display microcomputer interface signal input
70	$\overline{\text{DISP FLS W}}$	I	Display flash wright mode signal input
71	$\overline{\text{DISP RESET}}$	O	Display microcomputer reset signal output
72	NC	—	Not used. (Open)
73, 74	RE IN0, 1	I	Rotary encoder signal input
75	RESET	I	Reset signal input
76	NC	—	Not used. (Open)
77	X1A	—	32 kHz oscillator connect pin (32.768 kHz)
78	X0A	—	32 kHz oscillator connect pin (32.768 kHz)
79	VSS	—	Ground pin
80	X0	—	18 MHz oscillator connect pin (18.432 MHz)
81	X1	—	18 MHz oscillator connect pin (18.432 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83 to 90	NC	—	Not used. (Open)
91	$\overline{\text{TU ATT}}$	O	Tuner mute control signal output
92	NS MASK	O	Noise mask signal output
93	$\overline{\text{VOL ATT}}$	O	Electronic volume attenuate control signal output
94	SA CLK	O	Spectrum analyzer clock signal output
95	$\overline{\text{ILL IN}}$	I	Illumination on/off signal input
96	$\overline{\text{TEST IN}}$	I	Test mode detect signal input
97	TEL ATT	I	Telephone attenuate signal input
98	$\overline{\text{RC IN1}}$	I	Rotary commander shift key signal input
99	$\overline{\text{ACC IN}}$	I	Accessory power supply detect signal input
100	BUS/$\overline{\text{AUX}}$	O	BUS/AUX input select signal output “H”: BUS in, “L”: AUX in

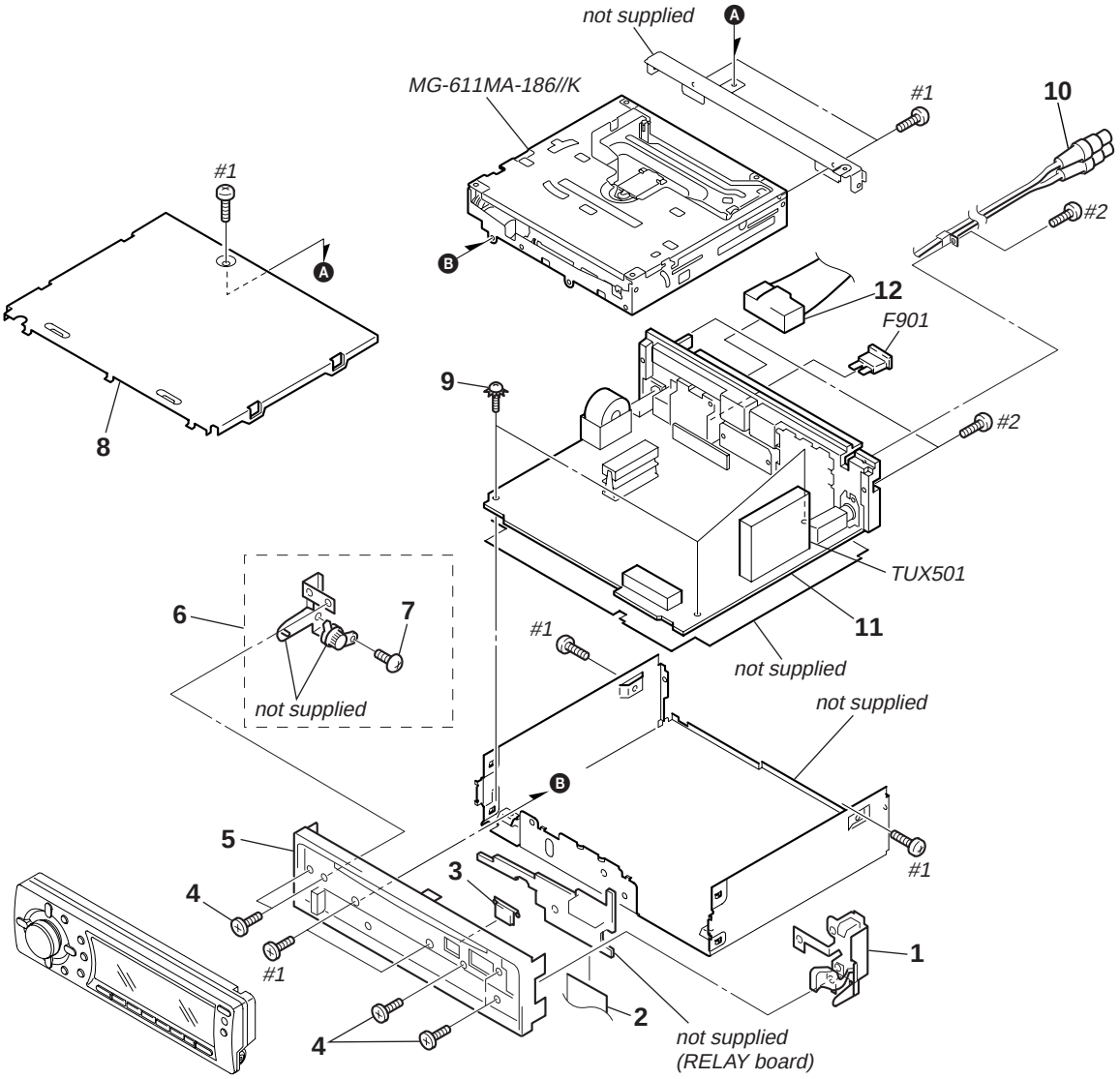
SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

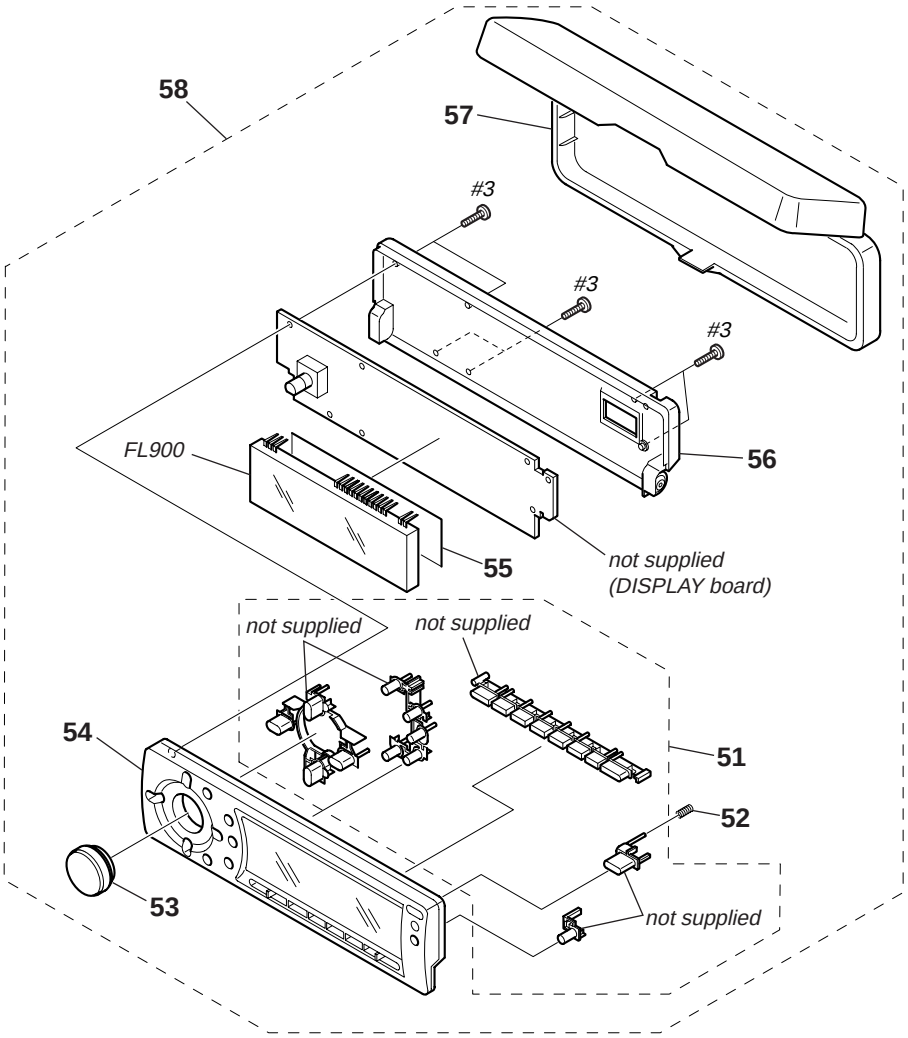
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-3384-273-1	LOCK ASSY	
2	1-828-511-11	CABLE, FLAT (FFC) 22P	
3	3-246-030-01	BUTTON (EJECT)	
4	3-261-903-01	SCREW (+BTT M2X5)	
5	X-3384-490-2	PANEL ASSY (CD), SUB	
6	X-3384-271-2	GEAR ASSY	
7	3-713-786-51	SCREW +P 2X3	
* 8	3-246-006-31	COVER	
9	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
10	1-790-375-12	CORD (WITH CONNECTOR) (SUB OUT (MONO))	
11	A-1087-268-A	MAIN BOARD, COMPLETE (F7715X)	
11	A-1087-269-A	MAIN BOARD, COMPLETE (EXCEPT F7715X)	
12	1-776-207-72	CORD (WITH CONNECTOR) (POWER) (F7710/F7710S/F7715X)	
12	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER) (F7750/F7750S)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX501	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	

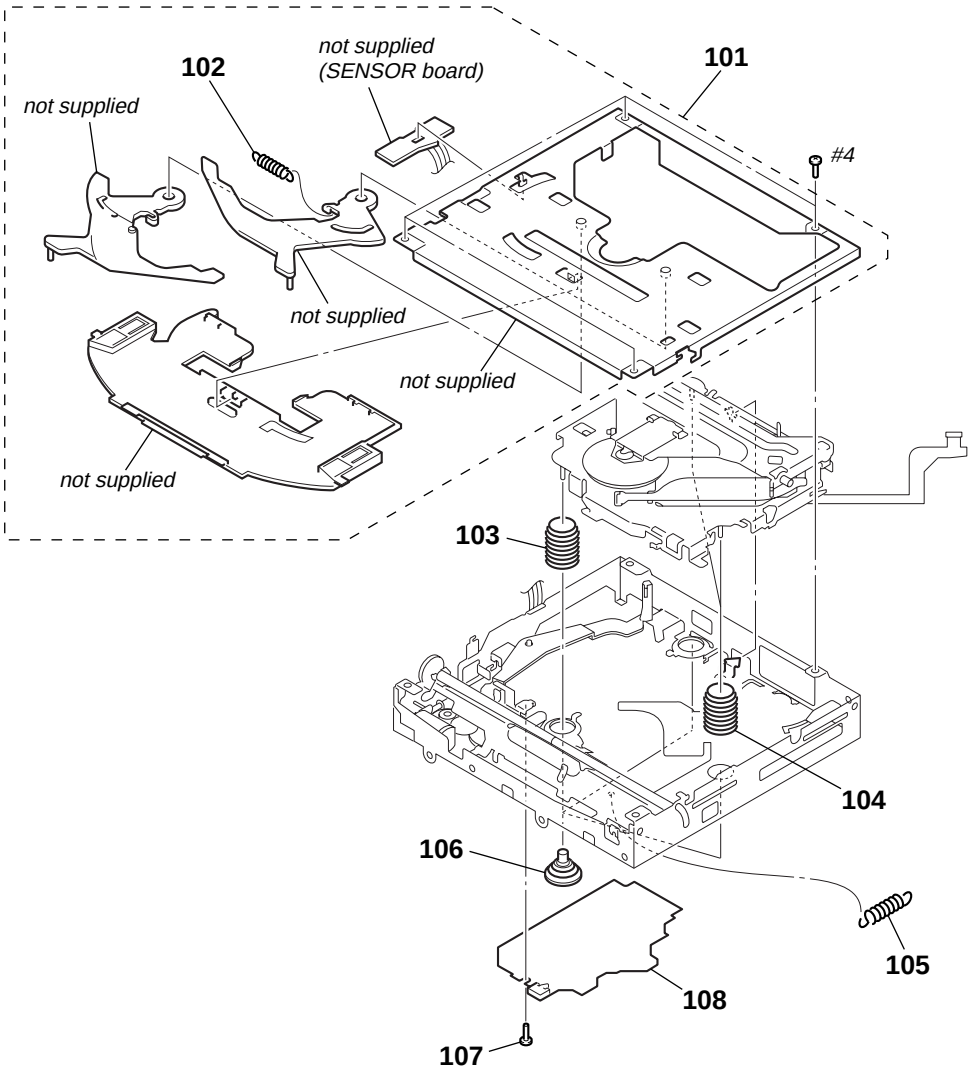
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-2024-931-1	BUTTON KIT ASSY (S) (F7715X)	
51	X-2024-932-1	BUTTON KIT ASSY (S) (F7710/F7750)	
51	X-3384-508-2	BUTTON KIT ASSY (S) (F7710S/F7750S)	
52	3-032-321-01	SPRING (OPEN)	
53	X-2050-762-1	KNOB ASSY (S) (F7710/F7715X/F7750)	
53	X-3384-635-1	KNOB ASSY (S) (F7710S/F7750S)	
54	X-2024-936-1	PANEL (S) ASSY, FRONT (F7715X)	
54	X-2024-937-1	PANEL (S) ASSY, FRONT (F7710)	
54	X-2024-938-1	PANEL (S) ASSY, FRONT (F7710S)	
54	X-2024-939-1	PANEL (S) ASSY, FRONT (F7750S)	
54	X-2024-940-1	PANEL (S) ASSY, FRONT (F7750)	

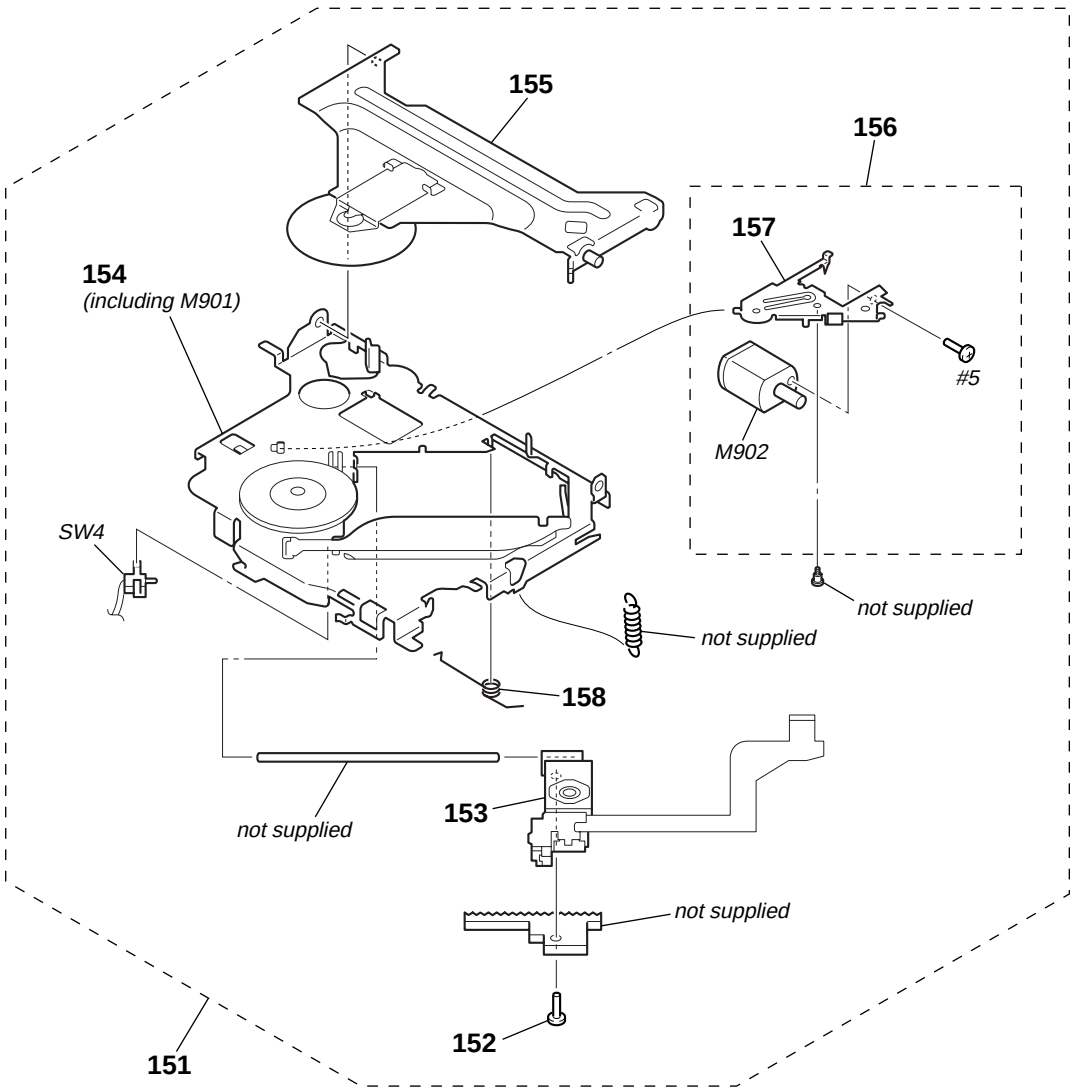
Ref. No.	Part No.	Description	Remark
55	3-260-341-03	SHEET (FL)	
56	X-3384-495-3	PANEL ASSY, FRONT BACK	
57	X-3385-170-1	CASE ASSY (for FRONT PANEL)	
58	A-1087-287-A	PANEL COMPLETE ASSY, FRONT (F7715X)	
58	A-1087-288-A	PANEL COMPLETE ASSY, FRONT (F7710)	
58	A-1087-289-A	PANEL COMPLETE ASSY, FRONT (F7710S)	
58	A-1087-290-A	PANEL COMPLETE ASSY, FRONT (F7750S)	
58	A-1087-291-A	PANEL COMPLETE ASSY, FRONT (F7750)	
FL900	1-518-953-21	INDICATOR TUBE, FLUORESCENT	
#3	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	

4-3. CD MECHANISM SECTION (1)
(MG-611TS-186//K)



Ref. No.	Part No.	Description	Remark
101	A-3372-455-A	CHASSIS (T) SUB ASSY (F7750)	
102	3-253-729-01	SPRING (LTR), TENSION COIL	
103	3-253-746-14	SPRING (DAMPER), COMPRESSION	
104	3-253-746-03	SPRING (DAMPER), COMPRESSION	
105	2-345-767-01	SPRING (KF60), TENSION	
106	3-253-748-01	DAMPER (S)	
107	3-352-758-31	SCREW (M1.7), TOOTHED LOCK	
108	A-1075-811-A	SERVO BOARD, COMPLETE	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-4. CD MECHANISM SECTION (2)
(MG-611TS-186//K)

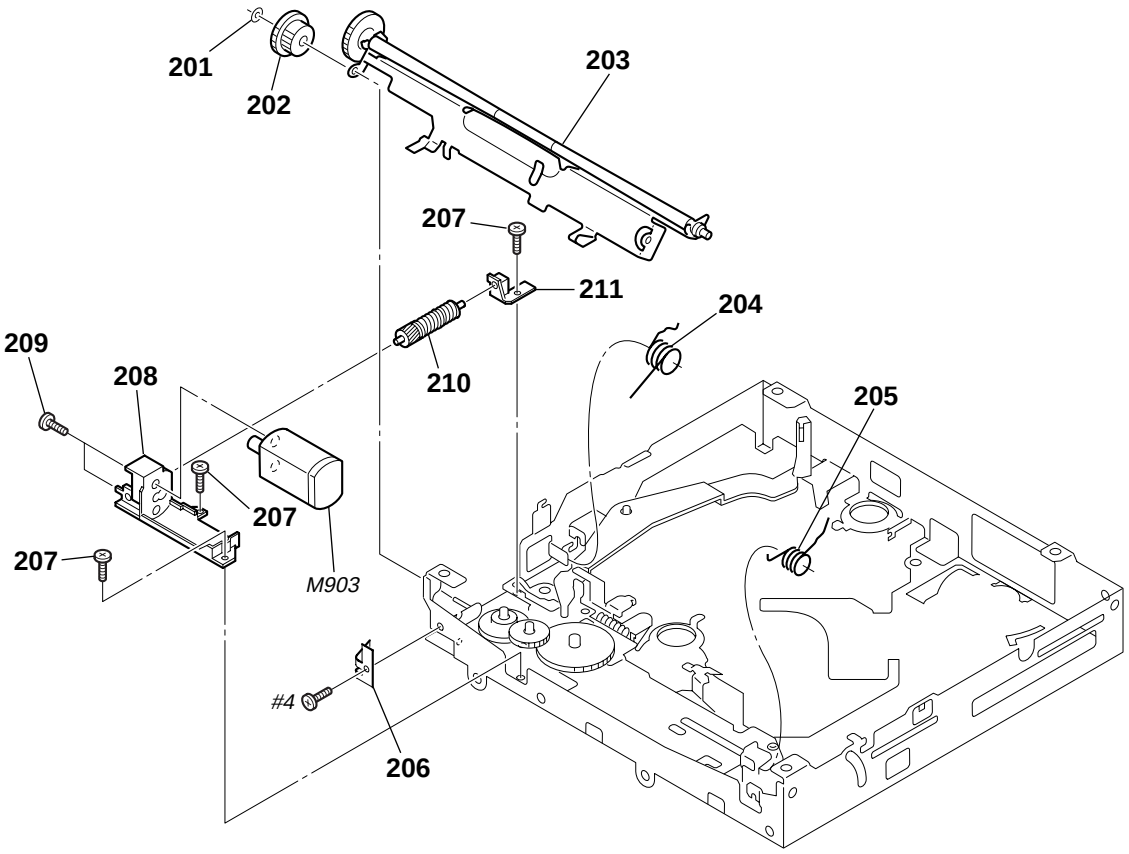


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
151	A-1075-786-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-787-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3337-641-A	ARM SUB ASSY, CHUCKING	
156	A-3337-639-A	LEVER (SL) SUB ASSY	

Ref. No.	Part No.	Description	Remark
157	X-3383-454-3	LEVER (SL) ASSY	
158	3-261-959-02	SPRING (SL), TORSION	
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

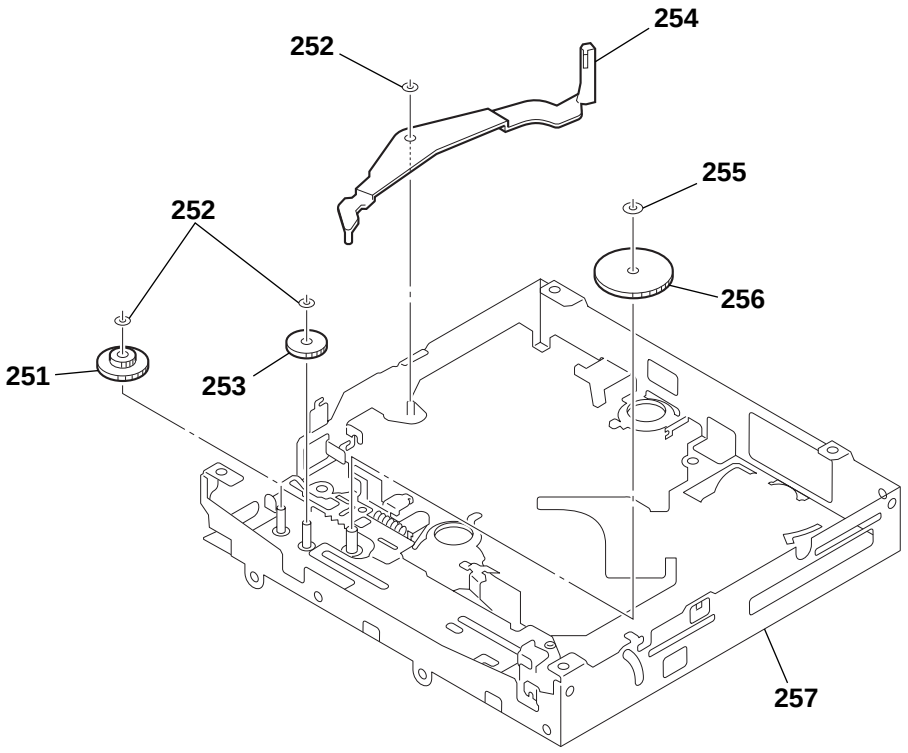
4-5. CD MECHANISM SECTION (3)
(MG-611TS-186//K)



Ref. No.	Part No.	Description	Remark
201	3-262-755-01	WASHER (1.1-2.5)	
202	2-186-699-11	GEAR (RA1)	
203	A-1075-789-A	ARM ASSY, ROLLER	
204	3-259-455-02	SPRING (RAL)	
205	3-253-713-01	SPRING (RAR)	
206	3-259-469-01	SPRING (LE), LEAF	
207	2-134-636-31	SCREW (M1.7X2.5)	

Ref. No.	Part No.	Description	Remark
208	2-186-696-11	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-637-A	GEAR (LE) ASSY	
211	2-186-697-11	BEARING (LEB-N)	
M903	A-1075-792-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611TS-186//K)



Ref. No.	Part No.	Description	Remark
251	2-186-700-11	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-01	GEAR (LE1)	
254	3-253-755-02	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	3-259-032-01	GEAR (LE2)	
257	A-1075-791-A	CHASSIS (M) BLOCK ASSY	

SECTION 5
ELECTRICAL PARTS LIST

DISPLAY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA..: µPA..
  uPB.. : µPB.. uPC..: µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		DISPLAY BOARD			
		**********			
	3-260-341-03	SHEET (FL)			
		< CAPACITOR >			
C901	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C903	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C905	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C906	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C907	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C909	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C913	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C914	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C917	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C918	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C920	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C921	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C922	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C923	1-165-319-11	CERAMIC CHIP	0.1uF		50V
		< CONNECTOR >			
CN901	1-818-141-11	PLUG, CONNECTOR 20P			
		< DIODE >			
D901	8-719-977-12	DIODE DTZ6.8B			
D902	8-719-977-12	DIODE DTZ6.8B			
D903	8-719-977-12	DIODE DTZ6.8B			
D904	8-719-977-12	DIODE DTZ6.8B			
D905	8-719-977-12	DIODE DTZ6.8B			
D906	8-719-977-12	DIODE DTZ6.8B			
D907	8-719-977-12	DIODE DTZ6.8B			
D908	8-719-977-12	DIODE DTZ6.8B			
D909	8-719-977-12	DIODE DTZ6.8B			
D910	8-719-977-12	DIODE DTZ6.8B			
D912	8-719-404-50	DIODE MA111-TX			
D913	1-216-864-11	SHORT CHIP 0			
D914	8-719-977-12	DIODE DTZ6.8B			
D915	8-719-977-12	DIODE DTZ6.8B			
D916	8-719-977-12	DIODE DTZ6.8B			
D917	8-719-977-12	DIODE DTZ6.8B			
D918	8-719-977-12	DIODE DTZ6.8B			

Ref. No.	Part No.	Description	Remark
		< ROTARY ENCODER >	
ENC901	1-478-474-11	ENCODER, ROTARY (PUSH SOUND VOLUME)	
		< FERRITE BEAD >	
FB902	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB903	1-216-864-11	SHORT CHIP 0	
FB904	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB905	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB906	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB907	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB909	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB910	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB911	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB912	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB913	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB914	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB915	1-414-760-21	INDUCTOR, FERRITE BEAD	
FB916	1-216-864-11	SHORT CHIP 0	
		< FLUORESCENT INDICATOR >	
FL900	1-518-953-21	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC901	6-805-091-01	IC uPD703263GC-101-8EA-A	
IC902	8-759-523-94	IC TC74VHC32FT(EL)	
IC903	6-600-384-01	IC KSM-401E (IR)	
IC904	8-759-659-13	IC PST3428UL	
		< DIODE >	
LED901	6-500-476-01	LED SML310BA1TT86 (IMAGE)	
LED902	6-500-476-01	LED SML310BA1TT86 (DISP) (F7715X)	
LED902	6-500-476-01	LED SML310BA1TT86 (AF/TA)	(EXCEPT F7715X)
LED903	6-500-476-01	LED SML310BA1TT86 (6)	
LED904	6-500-476-01	LED SML310BA1TT86 (5)	
LED905	6-500-476-01	LED SML310BA1TT86 (4)	
LED906	6-500-476-01	LED SML310BA1TT86 (3)	
LED907	6-500-476-01	LED SML310BA1TT86 (2)	
LED908	6-500-476-01	LED SML310BA1TT86 (1)	
LED909	6-500-476-01	LED SML310BA1TT86 (SOURCE)	
LED910	6-500-476-01	LED SML310BA1TT86 (OFF)	
LED911	6-500-476-01	LED SML310BA1TT86 (SCRL)	
LED912	6-500-476-01	LED SML310BA1TT86 (EQ7)	
LED913	6-500-476-01	LED SML310BA1TT86 (SEEK +)	

Ref. No.	Part No.	Description	Remark
LED914	6-500-476-01	LED SML310BA1TT86 (GP/PRESET +)	
LED915	6-500-476-01	LED SML310BA1TT86 (SEEK –)	
LED916	6-500-476-01	LED SML310BA1TT86 (GP/PRESET –)	
LED917	6-500-476-01	LED SML310BA1TT86 (DSO)	
LED918	6-500-476-01	LED SML310BA1TT86 (MODE)	
LED919	6-500-476-01	LED SML310BA1TT86 (VOLUME ILLUMINATION)	
LED920	6-500-476-01	LED SML310BA1TT86 (VOLUME ILLUMINATION)	
LED921	6-500-476-01	LED SML310BA1TT86 (VOLUME ILLUMINATION)	
LED922	6-500-476-01	LED SML310BA1TT86 (VOLUME ILLUMINATION)	
LED923	6-500-476-01	LED SML310BA1TT86 (OPEN)	
LED924	6-500-476-01	LED SML310BA1TT86 (SOURCE)	
		< RESISTOR >	
R901	1-219-286-11	RES-CHIP 680 2%	1/16W
R902	1-219-286-11	RES-CHIP 680 2%	1/16W
R903	1-219-286-11	RES-CHIP 680 2%	1/16W
R904	1-218-847-11	METAL CHIP 1K 0.5%	1/10W
R905	1-218-851-11	METAL CHIP 1.5K 0.5%	1/10W
R906	1-218-851-11	METAL CHIP 1.5K 0.5%	1/10W
R907	1-218-855-11	METAL CHIP 2.2K 0.5%	1/10W
R908	1-218-859-11	METAL CHIP 3.3K 0.5%	1/10W
R909	1-218-863-11	METAL CHIP 4.7K 0.5%	1/10W
R910	1-219-286-11	RES-CHIP 680 2%	1/16W
R911	1-219-286-11	RES-CHIP 680 2%	1/16W
R912	1-219-286-11	RES-CHIP 680 2%	1/16W
R913	1-218-847-11	METAL CHIP 1K 0.5%	1/10W
R914	1-218-851-11	METAL CHIP 1.5K 0.5%	1/10W
R915	1-218-851-11	METAL CHIP 1.5K 0.5%	1/10W
R916	1-218-855-11	METAL CHIP 2.2K 0.5%	1/10W
R917	1-218-859-11	METAL CHIP 3.3K 0.5%	1/10W
R918	1-216-812-11	METAL CHIP 180 5%	1/10W
R920	1-216-812-11	METAL CHIP 180 5%	1/10W
R922	1-216-812-11	METAL CHIP 180 5%	1/10W
R924	1-216-812-11	METAL CHIP 180 5%	1/10W
R926	1-216-812-11	METAL CHIP 180 5%	1/10W
R928	1-216-812-11	METAL CHIP 180 5%	1/10W
R930	1-216-812-11	METAL CHIP 180 5%	1/10W
R932	1-216-812-11	METAL CHIP 180 5%	1/10W
R934	1-216-812-11	METAL CHIP 180 5%	1/10W
R936	1-216-812-11	METAL CHIP 180 5%	1/10W
R938	1-216-812-11	METAL CHIP 180 5%	1/10W
R958	1-216-845-11	METAL CHIP 100K 5%	1/10W
R959	1-216-845-11	METAL CHIP 100K 5%	1/10W
R960	1-216-845-11	METAL CHIP 100K 5%	1/10W
R961	1-216-009-11	RES-CHIP 22 5%	1/10W
R970	1-216-833-11	METAL CHIP 10K 5%	1/10W
R971	1-216-833-11	METAL CHIP 10K 5%	1/10W
R972	1-216-809-11	METAL CHIP 100 5%	1/10W
R973	1-216-815-11	METAL CHIP 330 5%	1/10W
R976	1-216-864-11	SHORT CHIP 0	
R977	1-216-821-11	METAL CHIP 1K 5%	1/10W
R978	1-218-863-11	METAL CHIP 4.7K 0.5%	1/10W
R979	1-216-821-11	METAL CHIP 1K 5%	1/10W
R980	1-216-821-11	METAL CHIP 1K 5%	1/10W
R983	1-216-821-11	METAL CHIP 1K 5%	1/10W
R984	1-216-821-11	METAL CHIP 1K 5%	1/10W
R987	1-216-845-11	METAL CHIP 100K 5%	1/10W
		< SWITCH >	
S902	1-786-763-11	SWITCH, TACTILE (OFF)	
S903	1-786-763-11	SWITCH, TACTILE (SEEK +)	
S904	1-786-763-11	SWITCH, TACTILE (SEEK –)	
S905	1-786-763-11	SWITCH, TACTILE (GP/PRESET +)	
S906	1-786-763-11	SWITCH, TACTILE (GP/PRESET –)	
S907	1-786-763-11	SWITCH, TACTILE (MODE)	
S908	1-786-763-11	SWITCH, TACTILE (DSO)	
S909	1-786-763-11	SWITCH, TACTILE (SCRL)	
S910	1-786-763-11	SWITCH, TACTILE (EQ7)	
S911	1-786-763-11	SWITCH, TACTILE (SOURCE)	
S912	1-786-763-11	SWITCH, TACTILE (IMAGE)	
S913	1-786-763-11	SWITCH, TACTILE (DISP) (F7715X)	
S913	1-786-763-11	SWITCH, TACTILE (AF/TA) (EXCEPT F7715X)	
S914	1-786-763-11	SWITCH, TACTILE (6/PAUSE)	
S915	1-786-763-11	SWITCH, TACTILE (5/BBE MP)	
S916	1-786-763-11	SWITCH, TACTILE (4)	
S917	1-786-763-11	SWITCH, TACTILE (3)	
S918	1-786-763-11	SWITCH, TACTILE (2/SHUF)	
S919	1-786-763-11	SWITCH, TACTILE (1/REP)	
		< VIBRATOR >	
X901	1-813-487-21	VIBRATOR, CRYSTAL (5MHz)	
**********			
	A-1087-268-A	MAIN BOARD, COMPLETE (including SPEAKER BOARD) (F7715X)	
	A-1087-269-A	MAIN BOARD, COMPLETE (including SPEAKER BOARD) (EXCEPT F7715X)	
		**********	
	7-621-284-40	SCREW +P 2.6X10	
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
	7-685-793-09	SCREW +PTT 2.6X8 (S)	
	7-685-795-09	SCREW +PTT 2.6X12 (S)	
		< CAPACITOR >	
C101	1-126-940-11	ELECT 330uF 20%	25V
C102	1-126-960-11	ELECT 1uF 20%	50V
C103	1-112-302-11	ELECT 3300uF	16V
C106	1-115-340-11	CERAMIC CHIP 0.22uF 10%	25V
C110	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C111	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C112	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C113	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C119	1-115-340-11	CERAMIC CHIP 0.22uF 10%	25V
C142	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C172	1-124-717-85	ELECT 1uF 20%	50V
C173	1-124-721-85	ELECT 10uF 20%	50V
C178	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C182	1-124-717-85	ELECT 1uF 20%	50V
C183	1-124-721-85	ELECT 10uF 20%	50V
C188	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C199	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C200	1-115-340-11	CERAMIC CHIP 0.22uF 10%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C201	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C202	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C203	1-126-961-11	ELECT	2.2uF	20%	50V
C204	1-124-695-85	ELECT	22uF	20%	25V
C205	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C206	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C207	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C208	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C209	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C210	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C211	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C212	1-126-964-11	ELECT	10uF	20%	50V
C214	1-126-964-11	ELECT	10uF	20%	50V
C215	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C217	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C218	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C219	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C221	1-126-933-11	ELECT	100uF	20%	16V
C223	1-126-964-11	ELECT	10uF	20%	50V
C225	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C226	1-126-934-11	ELECT	220uF	20%	16V
C242	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C272	1-124-717-85	ELECT	1uF	20%	50V
C273	1-124-721-85	ELECT	10uF	20%	50V
C278	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C282	1-124-717-85	ELECT	1uF	20%	50V
C283	1-124-721-85	ELECT	10uF	20%	50V
C288	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C303	1-126-933-11	ELECT	100uF	20%	16V
C304	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-124-717-85	ELECT	1uF	20%	50V
C309	1-124-717-85	ELECT	1uF	20%	50V
C310	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C311	1-126-916-11	ELECT	1000uF	20%	6.3V
C312	1-126-934-11	ELECT	220uF	20%	16V
C313	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C316	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C321	1-126-933-11	ELECT	100uF	20%	16V
C324	1-126-933-11	ELECT	100uF	20%	16V
C325	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C326	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C327	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C328	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C329	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C330	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C333	1-126-933-11	ELECT	100uF	20%	16V
C334	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C335	1-124-673-85	ELECT	100uF	20%	10V
C336	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C342	1-124-721-85	ELECT	10uF	20%	50V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C344	1-124-673-85	ELECT	100uF	20%	10V
C345	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C346	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C400	1-124-721-85	ELECT	10uF	20%	50V
C401	1-126-947-11	ELECT	47uF	20%	35V
C416	1-124-717-85	ELECT	1uF	20%	50V
C417	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C418	1-124-721-85	ELECT	10uF	20%	50V
C419	1-126-959-11	ELECT	0.47uF	20%	50V
C420	1-126-959-11	ELECT	0.47uF	20%	50V
C421	1-124-717-85	ELECT	1uF	20%	50V
C422	1-124-673-85	ELECT	100uF	20%	10V
C423	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C424	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C425	1-136-154-00	FILM	0.012uF	5%	50V
C426	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C427	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C428	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C429	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C430	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C431	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C432	1-136-154-00	FILM	0.012uF	5%	50V
C433	1-126-960-11	ELECT	1uF	20%	50V
C434	1-126-960-11	ELECT	1uF	20%	50V
C435	1-126-960-11	ELECT	1uF	20%	50V
C436	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C437	1-124-673-85	ELECT	100uF	20%	10V
C438	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C439	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C440	1-124-673-85	ELECT	100uF	20%	10V
C441	1-124-721-85	ELECT	10uF	20%	50V
C442	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C443	1-126-964-11	ELECT	10uF	20%	50V
C448	1-124-721-85	ELECT	10uF	20%	50V
C449	1-124-721-85	ELECT	10uF	20%	50V
C450	1-124-721-85	ELECT	10uF	20%	50V
C451	1-124-721-85	ELECT	10uF	20%	50V
C452	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C453	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C475	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-126-933-11	ELECT	100uF	20%	16V
C503	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT F7715X)
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-126-933-11	ELECT	100uF	20%	16V
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C550	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (EXCEPT F7715X)
C551	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (EXCEPT F7715X)
C552	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (EXCEPT F7715X)
C554	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (EXCEPT F7715X)
C556	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (EXCEPT F7715X)

Ref. No.	Part No.	Description				Remark
C557	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	(EXCEPT F7715X)
C558	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	(EXCEPT F7715X)
C559	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	(EXCEPT F7715X)
C560	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	(EXCEPT F7715X)
C561	1-126-947-11	ELECT	47uF	20%	35V	(EXCEPT F7715X)
C562	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	(EXCEPT F7715X)
C620	1-104-665-11	ELECT	100uF	20%	25V	
C621	1-128-552-11	ELECT	47uF	20%	63V	
C622	1-126-934-11	ELECT	220uF	20%	16V	
C623	1-126-964-11	ELECT	10uF	20%	50V	
C624	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C625	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C628	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C629	1-126-933-11	ELECT	100uF	20%	16V	
C900	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C901	1-126-965-11	ELECT	22uF	20%	50V	
C902	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C903	1-126-963-11	ELECT	4.7uF	20%	50V	
C928	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C930	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
		< CONNECTOR >				
* CN401	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P				
CN601	1-569-915-11	SOCKET, CONNECTOR 22P				
CNP101	1-774-701-21	PIN, CONNECTOR 16P				
CNP102	1-580-907-41	PLUG, CONNECTOR (BUS CONTROL IN)				
CNP301	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P				
		< JACK >				
CNJ101	1-764-270-21	JACK, STEREO MINIATURE (DIA. 3.5)				(REMOTE IN)
		< DIODE >				
D101	8-719-083-66	DIODE	UDZSTE-1718B			
D102	8-719-083-66	DIODE	UDZSTE-1718B			
D103	8-719-060-48	DIODE	RB751V-40TE-17			
D104	8-719-069-56	DIODE	UDZSTE-176.2B			
D105	8-719-083-66	DIODE	UDZSTE-1718B			
D106	8-719-977-12	DIODE	DTZ6.8B			
D108	8-719-083-66	DIODE	UDZSTE-1718B			
D109	8-719-049-38	DIODE	1N5404TU			
D110	8-719-053-18	DIODE	1SR154-400TE-25			
D111	8-719-053-18	DIODE	1SR154-400TE-25			
D112	8-719-053-18	DIODE	1SR154-400TE-25			
D113	8-719-053-18	DIODE	1SR154-400TE-25			
D114	8-719-053-18	DIODE	1SR154-400TE-25			
D115	8-719-053-18	DIODE	1SR154-400TE-25			
D116	8-719-053-18	DIODE	1SR154-400TE-25			
D117	8-719-053-18	DIODE	1SR154-400TE-25			
D118	8-719-053-18	DIODE	1SR154-400TE-25			
D119	8-719-053-18	DIODE	1SR154-400TE-25			
D120	6-500-508-01	DIODE	RR263M-400FTR			
D121	6-500-508-01	DIODE	RR263M-400FTR			

Ref. No.	Part No.	Description		Remark
D122	8-719-977-12	DIODE	DTZ6.8B	
D270	8-719-060-48	DIODE	RB751V-40TE-17	
D271	8-719-060-48	DIODE	RB751V-40TE-17	
D301	8-719-820-05	DIODE	1SS181	
D302	8-719-060-48	DIODE	RB751V-40TE-17	
D304	8-719-060-48	DIODE	RB751V-40TE-17	
D307	8-719-080-34	DIODE	SDS511	
D308	8-719-080-34	DIODE	SDS511	
D400	8-719-058-24	DIODE	RB501V-40TE-17	
D401	8-719-404-50	DIODE	MA111-TX	
D402	8-719-058-24	DIODE	RB501V-40TE-17	
D501	8-719-069-55	DIODE	UDZSTE-175.6B	
D601	8-719-977-12	DIODE	DTZ6.8B	
D602	8-719-977-12	DIODE	DTZ6.8B	
D603	8-719-977-12	DIODE	DTZ6.8B	
D604	8-719-977-12	DIODE	DTZ6.8B	
D605	6-500-886-01	DIODE	RSA6.1ENTR	
D606	6-500-886-01	DIODE	RSA6.1ENTR	
D607	8-719-083-66	DIODE	UDZSTE-1718B	
D620	8-719-053-18	DIODE	1SR154-400TE-25	
D621	8-719-053-18	DIODE	1SR154-400TE-25	
D622	6-501-089-01	DIODE	RF101L2STE25	
D623	8-719-067-83	DIODE	RB161L-40TE25	
D624	8-719-067-83	DIODE	RB161L-40TE25	
D625	8-719-083-66	DIODE	UDZSTE-1718B	
D626	8-719-080-28	DIODE	KDZ5.1V	
D907	8-719-060-48	DIODE	RB751V-40TE-17	
D909	8-719-080-34	DIODE	SDS511	
		< JUMPER RESISTOR >		
FB324	1-216-295-11	SHORT CHIP	0	
FB325	1-216-295-11	SHORT CHIP	0	
FB326	1-216-295-11	SHORT CHIP	0	
FB327	1-216-295-11	SHORT CHIP	0	
FB328	1-469-407-22	INDUCTOR, FERRITE BEAD		
FB329	1-216-295-11	SHORT CHIP	0	
FB441	1-414-813-11	FERRITE, EMI (SMD) (2012)		
FB442	1-414-813-11	FERRITE, EMI (SMD) (2012)		
FB501	1-216-295-11	SHORT CHIP	0	
FB503	1-216-295-11	SHORT CHIP	0	
FB550	1-216-295-11	SHORT CHIP	0 (EXCEPT F7715X)	
FB551	1-216-295-11	SHORT CHIP	0 (EXCEPT F7715X)	
FB552	1-216-797-11	METAL CHIP	10 5% 1/10W	(EXCEPT F7715X)
FB555	1-216-797-11	METAL CHIP	10 5% 1/10W	(EXCEPT F7715X)
		< IC >		
IC110	6-703-884-01	IC	BA8271F-E2	
IC201	6-705-359-02	IC	TDA8588AJ/N2/R1	
IC301	6-705-373-01	IC	MM3123DPLE	
IC302	8-759-659-13	IC	PST3428UL	
IC303	6-805-006-01	IC	MB90487APFV-G-127-BNDE1	
IC321	6-707-282-01	IC	MM1615ANLE	
IC401	6-703-303-01	IC	TDA7416	
IC402	6-703-419-01	IC	LA2901V-TLM-E	
IC431	8-759-710-97	IC	NJM4565M-D	
IC451	8-759-710-97	IC	NJM4565M-D	

MAIN

Ref. No.	Part No.	Description	Remark
IC470	8-759-710-97	IC NJM4565M-D	
IC550	6-803-747-01	IC TDA7333013TR (EXCEPT F7715X)	
IC620	6-705-542-01	IC NJM2377M(TE2)	
IC900	6-707-281-01	IC MM1613DNLE	
		< JACK >	
J601	1-793-598-11	JACK (ANTENNA)	
		< JUMPER RESISTOR >	
JR1	1-216-296-11	SHORT CHIP 0	
JR2	1-216-296-11	SHORT CHIP 0	
JR201	1-216-296-11	SHORT CHIP 0	
		< COIL >	
L101	1-456-617-11	COIL, CHOKE	
L301	1-414-394-41	INDUCTOR 2.2uH	
L303	1-414-398-11	INDUCTOR 10uH	
L320	1-414-394-41	INDUCTOR 2.2uH	
L321	1-414-394-41	INDUCTOR 2.2uH	
L401	1-414-394-41	INDUCTOR 2.2uH	
L502	1-414-394-41	INDUCTOR 2.2uH	
L620	1-456-729-21	INDUCTOR 100uH	
		< JACK >	
PJ401	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN/AUX IN, AUDIO OUT REAR/FRONT)	
		< TRANSISTOR >	
Q101	8-729-055-94	TRANSISTOR SRC1202SF	
Q102	8-729-049-40	TRANSISTOR 2SC5343SFG	
Q103	8-729-049-40	TRANSISTOR 2SC5343SFG	
Q110	8-729-055-91	TRANSISTOR SRA2202SF	
Q111	8-729-055-94	TRANSISTOR SRC1202SF	
Q112	8-729-055-91	TRANSISTOR SRA2202SF	
Q171	6-550-752-01	TRANSISTOR DTC614TKT146	
Q181	6-550-752-01	TRANSISTOR DTC614TKT146	
Q271	6-550-752-01	TRANSISTOR DTC614TKT146	
Q281	6-550-752-01	TRANSISTOR DTC614TKT146	
Q301	8-729-038-55	TRANSISTOR KRA103S	
Q380	8-729-055-95	TRANSISTOR SRC1204SF (EXCEPT F7715X)	
Q401	8-729-055-95	TRANSISTOR SRC1204SF	
Q402	8-729-055-91	TRANSISTOR SRA2202SF	
Q408	6-550-683-01	FET RJK005N03-T146	
Q450	6-550-752-01	TRANSISTOR DTC614TKT146	
Q451	6-550-752-01	TRANSISTOR DTC614TKT146	
Q452	6-550-752-01	TRANSISTOR DTC614TKT146	
Q453	6-550-752-01	TRANSISTOR DTC614TKT146	
Q470	6-550-752-01	TRANSISTOR DTC614TKT146	
Q501	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q551	8-729-055-95	TRANSISTOR SRC1204SF (EXCEPT F7715X)	
Q552	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R (EXCEPT F7715X)	
Q601	8-729-055-91	TRANSISTOR SRA2202SF	
Q602	8-729-055-95	TRANSISTOR SRC1204SF	
Q620	6-551-131-01	FET 2SK3614-TD-E	
Q621	8-729-055-91	TRANSISTOR SRA2202SF	
Q622	8-729-055-95	TRANSISTOR SRC1204SF	
Q623	8-729-055-95	TRANSISTOR SRC1204SF	

Ref. No.	Part No.	Description			Remark
Q642	8-729-055-91	TRANSISTOR SRA2202SF			
Q907	8-729-049-40	TRANSISTOR 2SC5343SFG			
		< RESISTOR >			
R101	1-216-077-11	RES-CHIP	15K	5%	1/10W
R102	1-216-049-11	RES-CHIP	1K	5%	1/10W
R103	1-216-821-11	METAL CHIP	1K	5%	1/10W
R104	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W
R107	1-216-073-00	RES-CHIP	10K	5%	1/10W
R108	1-216-073-00	RES-CHIP	10K	5%	1/10W
R109	1-216-833-11	METAL CHIP	10K	5%	1/10W
R110	1-216-833-11	METAL CHIP	10K	5%	1/10W
R111	1-216-841-11	METAL CHIP	47K	5%	1/10W
R112	1-216-821-11	METAL CHIP	1K	5%	1/10W
R114	1-216-809-11	METAL CHIP	100	5%	1/10W
R115	1-216-809-11	METAL CHIP	100	5%	1/10W
R116	1-216-809-11	METAL CHIP	100	5%	1/10W
R117	1-216-821-11	METAL CHIP	1K	5%	1/10W
R118	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R119	1-216-849-11	METAL CHIP	220K	5%	1/10W
R120	1-216-849-11	METAL CHIP	220K	5%	1/10W
R121	1-216-821-11	METAL CHIP	1K	5%	1/10W
R122	1-216-797-11	METAL CHIP	10	5%	1/10W
R142	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R143	1-216-833-11	METAL CHIP	10K	5%	1/10W
R174	1-216-813-11	METAL CHIP	220	5%	1/10W
R175	1-216-841-11	METAL CHIP	47K	5%	1/10W
R184	1-216-813-11	METAL CHIP	220	5%	1/10W
R185	1-216-841-11	METAL CHIP	47K	5%	1/10W
R201	1-216-841-11	METAL CHIP	47K	5%	1/10W
R202	1-216-811-11	METAL CHIP	150	5%	1/10W
R203	1-216-049-11	RES-CHIP	1K	5%	1/10W
R204	1-216-049-11	RES-CHIP	1K	5%	1/10W
R205	1-216-049-11	RES-CHIP	1K	5%	1/10W
R206	1-216-049-11	RES-CHIP	1K	5%	1/10W
R240	1-216-295-11	SHORT CHIP	0		
R241	1-216-295-11	SHORT CHIP	0		
R242	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R243	1-216-833-11	METAL CHIP	10K	5%	1/10W
R244	1-216-864-11	SHORT CHIP	0		
R274	1-216-813-11	METAL CHIP	220	5%	1/10W
R275	1-216-841-11	METAL CHIP	47K	5%	1/10W
R284	1-216-813-11	METAL CHIP	220	5%	1/10W
R285	1-216-841-11	METAL CHIP	47K	5%	1/10W
R300	1-216-864-11	SHORT CHIP	0		
R301	1-216-864-11	SHORT CHIP	0		
R302	1-216-809-11	METAL CHIP	100	5%	1/10W
R303	1-216-809-11	METAL CHIP	100	5%	1/10W
R311	1-216-864-11	SHORT CHIP	0		
R318	1-216-845-11	METAL CHIP	100K	5%	1/10W
R320	1-216-864-11	SHORT CHIP	0		
R322	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R323	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R324	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R325	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R327	1-218-871-11	METAL CHIP	10K	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R328	1-216-809-11	METAL CHIP	100	5%	1/10W
R329	1-216-833-11	METAL CHIP	10K	5%	1/10W
R330	1-216-833-11	METAL CHIP	10K	5%	1/10W
R331	1-216-841-11	METAL CHIP	47K	5%	1/10W
R332	1-216-849-11	METAL CHIP	220K	5%	1/10W
R333	1-216-837-11	METAL CHIP	22K	5%	1/10W
R334	1-216-845-11	METAL CHIP	100K	5%	1/10W
R335	1-216-845-11	METAL CHIP	100K	5%	1/10W
R338	1-216-845-11	METAL CHIP	100K	5%	1/10W
R339	1-216-833-11	METAL CHIP	10K	5%	1/10W
R340	1-216-845-11	METAL CHIP	100K	5%	1/10W
R341	1-216-845-11	METAL CHIP	100K	5%	1/10W
R342	1-216-845-11	METAL CHIP	100K	5%	1/10W
R343	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R344	1-216-833-11	METAL CHIP	10K	5%	1/10W
R345	1-216-845-11	METAL CHIP	100K	5%	1/10W
R346	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT F7715X)
R347	1-216-845-11	METAL CHIP	100K	5%	1/10W (F7715X)
R348	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT F7715X)
R349	1-216-845-11	METAL CHIP	100K	5%	1/10W (F7715X)
R351	1-216-845-11	METAL CHIP	100K	5%	1/10W
R352	1-216-845-11	METAL CHIP	100K	5%	1/10W
R353	1-216-843-11	METAL CHIP	68K	5%	1/10W (EXCEPT F7715X)
R354	1-216-839-11	METAL CHIP	33K	5%	1/10W (EXCEPT F7715X)
R355	1-216-845-11	METAL CHIP	100K	5%	1/10W
R356	1-216-845-11	METAL CHIP	100K	5%	1/10W
R357	1-216-809-11	METAL CHIP	100	5%	1/10W
R358	1-216-809-11	METAL CHIP	100	5%	1/10W
R361	1-216-839-11	METAL CHIP	33K	5%	1/10W (EXCEPT F7715X)
R362	1-216-843-11	METAL CHIP	68K	5%	1/10W (EXCEPT F7715X)
R362	1-216-864-11	SHORT CHIP	0 (F7715X)		
R367	1-216-845-11	METAL CHIP	100K	5%	1/10W
R380	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT F7715X)
R401	1-216-017-11	RES-CHIP	47	5%	1/10W
R402	1-216-813-11	METAL CHIP	220	5%	1/10W
R407	1-216-841-11	METAL CHIP	47K	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-295-11	SHORT CHIP	0		
R414	1-216-833-11	METAL CHIP	10K	5%	1/10W
R415	1-216-833-11	METAL CHIP	10K	5%	1/10W
R416	1-216-025-11	RES-CHIP	100	5%	1/10W
R417	1-216-025-11	RES-CHIP	100	5%	1/10W
R418	1-216-025-11	RES-CHIP	100	5%	1/10W
R419	1-216-025-11	RES-CHIP	100	5%	1/10W
R420	1-216-833-11	METAL CHIP	10K	5%	1/10W
R421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R422	1-216-813-11	METAL CHIP	220	5%	1/10W
R424	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R426	1-216-864-11	SHORT CHIP	0		
R427	1-216-295-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
R429	1-216-086-00	RES-CHIP	36K	5%	1/10W
R430	1-216-082-00	RES-CHIP	24K	5%	1/10W
R431	1-216-086-00	RES-CHIP	36K	5%	1/10W
R432	1-216-082-00	RES-CHIP	24K	5%	1/10W
R433	1-216-086-00	RES-CHIP	36K	5%	1/10W
R434	1-216-082-00	RES-CHIP	24K	5%	1/10W
R435	1-216-086-00	RES-CHIP	36K	5%	1/10W
R436	1-216-082-00	RES-CHIP	24K	5%	1/10W
R437	1-216-833-11	METAL CHIP	10K	5%	1/10W
R438	1-216-835-11	METAL CHIP	15K	5%	1/10W
R449	1-216-835-11	METAL CHIP	15K	5%	1/10W
R450	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-835-11	METAL CHIP	15K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R455	1-216-835-11	METAL CHIP	15K	5%	1/10W
R456	1-216-833-11	METAL CHIP	10K	5%	1/10W
R457	1-216-813-11	METAL CHIP	220	5%	1/10W
R458	1-216-813-11	METAL CHIP	220	5%	1/10W
R459	1-216-813-11	METAL CHIP	220	5%	1/10W
R460	1-216-813-11	METAL CHIP	220	5%	1/10W
R461	1-216-841-11	METAL CHIP	47K	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R463	1-216-841-11	METAL CHIP	47K	5%	1/10W
R464	1-216-841-11	METAL CHIP	47K	5%	1/10W
R471	1-216-864-11	SHORT CHIP	0		
R472	1-216-835-11	METAL CHIP	15K	5%	1/10W
R473	1-216-833-11	METAL CHIP	10K	5%	1/10W
R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-839-11	METAL CHIP	33K	5%	1/10W
R503	1-216-843-11	METAL CHIP	68K	5%	1/10W
R504	1-216-295-11	SHORT CHIP	0		
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT F7715X)
R553	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT F7715X)
R554	1-216-801-11	METAL CHIP	22	5%	1/10W (EXCEPT F7715X)
R556	1-216-864-11	SHORT CHIP	0 (EXCEPT F7715X)		
R557	1-216-821-11	METAL CHIP	1K	5%	1/10W (EXCEPT F7715X)
R558	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT F7715X)
R600	1-216-295-11	SHORT CHIP	0		
R601	1-216-029-00	RES-CHIP	150	5%	1/10W
R602	1-216-029-00	RES-CHIP	150	5%	1/10W
R603	1-216-029-00	RES-CHIP	150	5%	1/10W
R604	1-216-025-11	RES-CHIP	100	5%	1/10W
R620	1-216-230-00	RES-CHIP	22K	5%	1/8W
R621	1-216-230-00	RES-CHIP	22K	5%	1/8W
R622	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R623	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R624	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R625	1-216-025-11	RES-CHIP	100	5%	1/10W
R626	1-216-848-11	METAL CHIP	180K	5%	1/10W
R627	1-216-846-11	METAL CHIP	120K	5%	1/10W
R628	1-216-841-11	METAL CHIP	47K	5%	1/10W
R629	1-216-833-11	METAL CHIP	10K	5%	1/10W
R630	1-216-837-11	METAL CHIP	22K	5%	1/10W
R631	1-216-821-11	METAL CHIP	1K	5%	1/10W

MAIN **RELAY** **SENSOR** **SERVO**

Ref. No.	Part No.	Description			Remark
R632	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R633	1-216-821-11	METAL CHIP	1K	5%	1/10W
R635	1-216-864-11	SHORT CHIP	0		
R636	1-216-839-11	METAL CHIP	33K	5%	1/10W
R637	1-216-864-11	SHORT CHIP	0		
R644	1-216-296-11	SHORT CHIP	0		
R647	1-216-296-11	SHORT CHIP	0		
R649	1-216-296-11	SHORT CHIP	0		
R901	1-216-296-11	SHORT CHIP	0		
R920	1-216-073-00	RES-CHIP	10K	5%	1/10W
R921	1-216-073-00	RES-CHIP	10K	5%	1/10W
R922	1-216-845-11	METAL CHIP	100K	5%	1/10W
R929	1-216-837-11	METAL CHIP	22K	5%	1/10W
R951	1-216-295-11	SHORT CHIP	0		
		< SWITCH >			
S300	1-786-458-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S301	1-762-638-21	SWITCH, TACTILE (RESET)			
		< TRANSFORMER >			
T620	1-443-212-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR (POSITIVE) >			
TH100	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER >			
TUX501	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X301	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X302	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
X550	1-813-173-11	VIBRATOR, CRYSTAL (8.664MHz)			(EXCEPT F7715X)
**********					
		RELAY BOARD			
		**********			
	1-828-511-11	CABLE, FLAT (FFC) 22P (CNP502)			
		< CONNECTOR >			
CNP501	1-818-142-11	SOCKET, CONNECTOR 20P			
		< DIODE >			
D990	8-719-977-12	DIODE DTZ6.8B			
D991	8-719-977-12	DIODE DTZ6.8B			
LED931	6-500-895-01	LED CL-270UB2-X-TS (DISC IN)			
LED932	6-500-204-01	LED CL-190UB2-X-T (⏏)			
		< RESISTOR >			
R990	1-216-809-11	METAL CHIP	100	5%	1/10W
		< SWITCH >			
S901	1-786-763-11	SWITCH, TACTILE (⏏)			
**********					

Ref. No.	Part No.	Description			Remark
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1075-811-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C4	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C7	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9	1-104-609-11	ELECT CHIP	100uF	20%	4V
C10	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C13	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C17	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C21	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C22	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C28	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C29	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C31	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C32	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C33	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C34	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C35	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C37	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C38	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C39	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C40	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C41	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C57	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C61	1-126-208-21	ELECT CHIP	47uF	20%	4V
C62	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C64	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C65	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C66	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C67	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V

SERVO

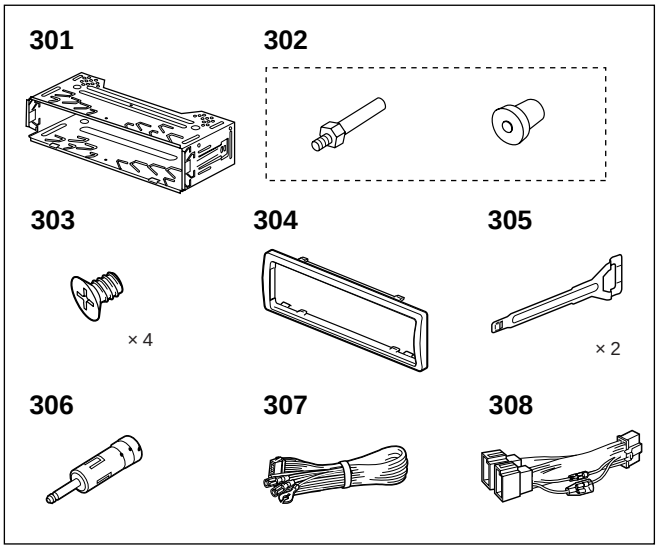
Ref. No.	Part No.	Description			Remark
C70	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C72	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C73	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C74	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C75	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C76	1-100-381-11	ELECT CHIP	10uF	20%	16V
C77	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C78	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C79	1-100-381-11	ELECT CHIP	10uF	20%	16V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C81	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C82	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C83	1-100-381-11	ELECT CHIP	10uF	20%	16V
C84	1-100-381-11	ELECT CHIP	10uF	20%	16V
C85	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C86	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C89	1-164-730-11	CERAMIC CHIP	0.0012uF	5%	50V
C90	1-164-730-11	CERAMIC CHIP	0.0012uF	5%	50V
C91	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C92	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C93	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C94	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C95	1-100-381-11	ELECT CHIP	10uF	20%	16V
C96	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C99	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C100	1-100-381-11	ELECT CHIP	10uF	20%	16V
C101	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN1	1-691-380-21	CONNECTOR, FFC/FPC 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
FB5	1-216-864-11	SHORT CHIP	0		
FB8	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-707-328-01	IC TC94A60MFG-301			
IC3	6-805-086-01	IC MB90487APFV-G-131-BNDE1			
IC5	6-707-329-01	IC PCM1793DBR			
IC6	6-705-364-01	IC R1114N151D-TR-FA			
IC7	8-759-422-21	IC NJM4580V(TE2)			
IC8	8-759-422-21	IC NJM4580V(TE2)			
		< VIBRATOR >			
IC4	1-813-502-11	OSCILLATOR, CRYSTAL (SMD) (16.9344MHz)			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W
R2	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R4	1-218-969-11	RES-CHIP	22K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-929-11	RES-CHIP	10	5%	1/16W
R7	1-218-929-11	RES-CHIP	10	5%	1/16W
R8	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9	1-218-967-11	RES-CHIP	15K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-218-977-11	RES-CHIP	100K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R16	1-218-967-11	RES-CHIP	15K	5%	1/16W
R17	1-218-973-11	RES-CHIP	47K	5%	1/16W
R19	1-218-967-11	RES-CHIP	15K	5%	1/16W
R21	1-218-973-11	RES-CHIP	47K	5%	1/16W
R22	1-218-990-11	SHORT CHIP	0		
R23	1-218-979-11	RES-CHIP	150K	5%	1/16W
R24	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R25	1-218-990-11	SHORT CHIP	0		
R26	1-218-941-81	RES-CHIP	100	5%	1/16W
R28	1-218-947-11	RES-CHIP	330	5%	1/16W
R29	1-218-945-11	RES-CHIP	220	5%	1/16W
R30	1-218-990-11	SHORT CHIP	0		
R37	1-218-945-11	RES-CHIP	220	5%	1/16W
R39	1-218-945-11	RES-CHIP	220	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-977-11	RES-CHIP	100K	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-941-81	RES-CHIP	100	5%	1/16W
R44	1-218-941-81	RES-CHIP	100	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R52	1-218-945-11	RES-CHIP	220	5%	1/16W
R53	1-218-941-81	RES-CHIP	100	5%	1/16W
R54	1-218-941-81	RES-CHIP	100	5%	1/16W
R55	1-218-977-11	RES-CHIP	100K	5%	1/16W
R56	1-218-941-81	RES-CHIP	100	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R58	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-977-11	RES-CHIP	100K	5%	1/16W
R60	1-218-977-11	RES-CHIP	100K	5%	1/16W
R61	1-218-977-11	RES-CHIP	100K	5%	1/16W
R62	1-218-977-11	RES-CHIP	100K	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R66	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W

SERVO

Ref. No.	Part No.	Description			Remark
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-941-81	RES-CHIP	100	5%	1/16W
R71	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R72	1-218-941-81	RES-CHIP	100	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-941-81	RES-CHIP	100	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-973-11	RES-CHIP	47K	5%	1/16W
R82	1-218-973-11	RES-CHIP	47K	5%	1/16W
R83	1-218-973-11	RES-CHIP	47K	5%	1/16W
R84	1-218-953-11	RES-CHIP	1K	5%	1/16W
R86	1-218-969-11	RES-CHIP	22K	5%	1/16W
R88	1-218-990-11	SHORT CHIP	0		
R89	1-218-941-81	RES-CHIP	100	5%	1/16W
R90	1-218-941-81	RES-CHIP	100	5%	1/16W
R91	1-218-941-81	RES-CHIP	100	5%	1/16W
R92	1-218-941-81	RES-CHIP	100	5%	1/16W
R93	1-218-941-81	RES-CHIP	100	5%	1/16W
R94	1-216-864-11	SHORT CHIP	0		
R95	1-216-864-11	SHORT CHIP	0		
R96	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R97	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R98	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R99	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R100	1-220-200-81	RES-CHIP	30K	5%	1/16W
R101	1-218-971-11	RES-CHIP	33K	5%	1/16W
R102	1-218-702-11	METAL CHIP	2.7K	0.5%	1/10W
R103	1-218-702-11	METAL CHIP	2.7K	0.5%	1/10W
R104	1-218-698-11	METAL CHIP	1.8K	0.5%	1/10W
R105	1-218-698-11	METAL CHIP	1.8K	0.5%	1/10W
R106	1-218-698-11	METAL CHIP	1.8K	0.5%	1/10W
R107	1-218-698-11	METAL CHIP	1.8K	0.5%	1/10W
R108	1-218-702-11	METAL CHIP	2.7K	0.5%	1/10W
R109	1-218-702-11	METAL CHIP	2.7K	0.5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R114	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R115	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R116	1-218-977-11	RES-CHIP	100K	5%	1/16W
R117	1-218-977-11	RES-CHIP	100K	5%	1/16W
R118	1-218-977-11	RES-CHIP	100K	5%	1/16W
R119	1-218-977-11	RES-CHIP	100K	5%	1/16W
R120	1-218-990-11	SHORT CHIP	0		
R121	1-218-990-11	SHORT CHIP	0		
R122	1-218-990-11	SHORT CHIP	0		
R123	1-218-990-11	SHORT CHIP	0		
R124	1-218-945-11	RES-CHIP	220	5%	1/16W
R125	1-218-941-81	RES-CHIP	100	5%	1/16W
R126	1-218-941-81	RES-CHIP	100	5%	1/16W
R127	1-218-941-81	RES-CHIP	100	5%	1/16W
R128	1-218-941-81	RES-CHIP	100	5%	1/16W
R129	1-218-941-81	RES-CHIP	100	5%	1/16W
R130	1-218-990-11	SHORT CHIP	0		
R132	1-218-962-11	RES-CHIP	5.6K	5%	1/16W

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)	
		< VIBRATOR >	
X1	1-813-371-21	VIBRATOR, CERAMIC (12MHz)	
**********			
		MISCELLANEOUS	
		***************	
10	1-790-375-12	CORD (WITH CONNECTOR) (SUB OUT (MONO))	
12	1-776-207-72	CORD (WITH CONNECTOR) (POWER) (F7710/F7710S/F7715X)	
12	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER) (F7750/F7750S)	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-787-A	CHASSIS (OP) SUB ASSY (including M901)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)	
M903	A-1075-792-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
**********			
		ACCESSORIES	
		************	
	1-479-077-21	REMOTE COMMANDER (RM-X152) (F7715X)	
	1-479-077-41	REMOTE COMMANDER (RM-X154) (EXCEPT F7715X)	
	2-515-342-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH) (F7715X)	
	2-515-342-21	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN) (F7750/F7750S)	
	2-515-342-31	MANUAL, INSTRUCTION (ENGLISH, TRADITIONAL CHINESE) (F7710/F7710S)	
	2-515-343-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH,SPANISH) (F7715X)	
	2-515-343-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN) (F7750/F7750S)	
	2-515-343-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, TRADITIONAL CHINESE) (F7710/F7710S)	
	2-548-729-01	LID, BATTERY CASE (for RM-X152/X154)	
	X-3385-170-1	CASE ASSY (for FRONT PANEL)	
**********			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	X-3366-405-1	SCREW ASSY (EXP), FITTING	(EXCEPT F7715X)
303	3-934-325-01	SCREW (+K 5X8 TP) (F7710/F7710S/F7715X)	
304	3-264-055-01	COLLAR	
305	3-246-471-01	KEY (FRAME)	
306	1-465-459-21	ADAPTOR, ANTENNA (F7750/F7750S)	
307	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	(F7710/F7710S/F7715X)
308	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(F7750/F7750S)